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Adopting a holistic approach to the valuation of learning programmes deployed in corporate environments

A project submitted to Middlesex University in partial fulfilment of the requirements for the degree of Doctor of Professional Studies

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1. Introduction

As Director of Learning for one of the country's largest training providers I have access to the most senior learning and development professionals in many of the nation's largest organisations. This access gives me a unique insight into the nature of their major challenges and an understanding of the business drivers that underpin their decision-making. What is becoming very clear is that whilst there is an increasing acceptance of the role of learning in providing competitive advantage, there is also an increasing dissatisfaction with the ability of traditional training methods to supply that need. The result is that organisations are looking for more innovative means of providing access to learning and for clear evidence that the investments they make in training and learning are indeed generating value.

Organisations are increasingly committing significant capital investment in their learning programmes and are naturally keen to be able to demonstrate quantitative benefits. But experience shows that the current evaluation models are difficult to deploy and produce little information that is valuable to the operational managers that commission the training programmes. The most recent trend in evaluation has been an attempt to overlay existing models with simple financial justification techniques such as ROI (Return on Investment) calculations. It is my contention that this approach is too simplistic and prone to emphasise cost avoidance rather than increased human capital. The organisations I work with are crying out for an evaluation model that clearly demonstrates the real value generated by their training and learning programmes; a model that can be consistently deployed and one that provides real insight into the effectiveness of their decisions.

This research programme grew out of my daily work and a desire to better understand the drivers of value creation in learning programmes. At the outset I envisioned the purpose of this research to be to examine the current state of practice in training evaluation in order to determine what is generally considered to be acceptable evidence of success. As a result I hoped to:

"Propose an holistic approach to the valuation of learning programmes deployed in corporate environments."

Specifically the objectives of the research were to:

- ◆ Assess the maturity of training evaluation processes as applied to learning programmes in corporate environments
- ◆ Compare current practice, where it exists, with best practice models espoused in the professional literature

- ◆ Develop a method of evaluating learning programmes based upon meaningful measures and indicators that effectively demonstrate to operational management the value generated by the programmes
- ◆ Develop information visualisation models to accompany the emerging evaluation method that can be simply and consistently deployed in organisations
- ◆ Examine the effectiveness and practicability of deploying such an evaluation method within a corporate environment
- ◆ Develop a series of best practice guidelines for the deployment of the valuation method for any corporate learning programme

In meeting these objectives my intention was to shape a new consulting offering for my organisation based upon the models that emerged from the research. I foresaw that it would then be necessary to work with our existing clients to validate and enrich the model before developing a cadre of consultants who could deploy the new methods to establish the value of corporate investment in learning initiatives. In so doing I saw an opportunity to fundamentally change the emphasis and practice of training evaluation within the learning and development profession.

2. Context

It has been said that “***the only thing that gives an organisation a competitive edge, the only thing that is sustainable – is what it knows, how it uses what it knows and how fast it can know something new.***”(Prusak 1996). This statement is significant for two reasons, firstly it places human knowledge as the central pillar of organisational success, and secondly it shifts the grounds for thinking about knowledge within organisations in that it implies that knowledge has a collective, organic dimension.

If knowledge is indeed the engine of competitive advantage then we need to answer fundamental questions about how we create, share, store, access, disseminate and collaborate around our critical knowledge assets. We need to find ways of nurturing the processes that create knowledge in our organisations and we need to remove the roadblocks to sharing knowledge. We have also come to realise that contrary to the traditional view that the creation of new knowledge is the function of the Research and Development department; most of the really useful knowledge at our disposal is in fact created and used within more prosaic organisational settings. The economy of the 21st century is based upon knowledge, more and more of the economy's added value is created by brain rather than brawn. Writing in 1995 Tapscott estimated that 60% of the US workforce were already knowledge workers (Tapscott 1996). Stewart is quick to point out that even traditional heavy industries are now dominated by knowledge. The Boeing 777 airliner was designed entirely on computers with no paper drawings or mock-ups, it has three on-board computers, but only two engines. It is fuelled by a petroleum derivative and perhaps not surprisingly over half the cost of finding, extracting and refining that fuel is information (Stewart 1997).

Our organisations have come on a rapid journey and many of the practices and structures that we take for granted have a history of less than 200 years. In “The Wealth of Nations” published in 1776, Adam Smith enthused about the economic benefits to be gained from the application of a new idea, the division of labour. He observed two methods of work in a pin making factory and reported how productivity was greatly increased by breaking a job down into simple, repetitive tasks. (Linden 1994). Scientific management was an invention of the mid 1800s and it is argued that the emergence of bureaucratic hierarchy can be traced to the recommendations of a US Government commission of investigation after a railroad disaster in Massachusetts in 1841 (Linden 1994). Time itself lacked any form of standardisation; clocks were set according to sunrise and it was only the development and proliferation of the railways and the need for consistent timetables that drove the adoption of a standard time across the UK (Hart-Davis 2001). As late as the 1860s, a near riot ensued when a textile mill owner in Lowell, Massachusetts, posted a new set of work rules requiring all weavers to report for work at the same time, after which the factory gates would be locked. The notion of

collective start and finish times in factories was such an alien idea that the workers dubbed it a "System of Slavery" and went on strike (Zuboff 1982). The early 1900s saw the principle of the division of labour taken to new heights by Frederick W. Taylor who conducted time and motion studies in a range of industries and was dedicated to the idea of taking the thinking out of work. He pioneered planning departments and introduced specialisation, rigid controls and the separation of line and staff (Linden 1994). With the rise of mass production techniques pioneered by Ford and Sloan we saw the pinnacle of task segmentation and the concentration on small, well defined, discrete actions. This was essential as Ford was faced with maintaining a complex production line with a largely transient, non-English speaking work force who needed to be given just enough skills to perform their limited duties. Thus the dominant paradigm through the 20th century, the industrial age, was production-based and labour and capital were the cornerstones of corporate success.

But for much of the last 30 years we have been entering and riding upon what Tofler termed the Third Wave (Toffler 1980), the rise of the information age and the centrality of the information worker. In this post-industrial era the emphasis has turned steadily away from land, labour and capital and towards information and knowledge. Even products and industries that we traditionally thought of as heavy industry now find that the value inherent in their products is largely information based. Bethlehem steel, the one-time industrial giant held tangible assets with a net book value of around \$1.2 billion in November 1995; at that same time Nucor a relative newcomer who had pioneered the mini-mill concept had net assets roughly equivalent at \$1.3 billion. However, Nucor had a stock market valuation of \$4.6 billion against Bethlehem's \$1.7 billion (Sveiby 1997). This is a graphic illustration of how the valuation of companies is changing to reflect the value of their intangible assets, knowledge, but companies neither report or trade in these assets.

With this rise of the importance of the information component we have also seen a fundamental revaluation of corporate assets and a reassessment of what constitutes value in organisations. At the end of 1996, IBM's total market capitalisation was around \$70.7 billion against \$85.5 billion for Microsoft. But in stock terms the difference in tangible assets meant that every \$100 invested in IBM was secured against \$23 of fixed assets whereas the same \$100 invested in Microsoft would buy fixed assets worth just over a dollar (Stewart 1997). The whole notion of value creation has fundamentally shifted; we are now light years away from the days of both Taylor, who wanted to inhibit thought in the workforce, and Ford who lamented "when I hire hands, why do they have to bring their heads". Now leading thinkers question our very standard of accountancy, which incidentally has hardly changed in substance since Pacioli, a Venetian monk published the first accounting text book in 1494 (Stewart 1997). We need new ways of

identifying and tracking the real drivers of shareholder value. It is becoming clear that in many industries intellectual capital is the true differentiator and driver of success and hence it should be accounted for on the corporate balance sheet (Edvinsson and Malone 1997).

The above discussion points to the centrality of information and knowledge to the continued wellbeing of our organisations; it points to a new perspective on the creation of knowledge and custodianship of information. It shows how the worker has transitioned from a mindless drone, fit only to fulfil prescribed tasks, to being the primary intangible asset. For knowledge is after all an artefact of the mind, it is created and resides in the mind and if organisations are to leverage their collective knowledge they must put it to work through the auspices of the worker.

Knowledge is socially constructed. In our organisations we facilitate this largely through face to face interaction, whether that be in the meeting room, the classroom or some accidental social interchange. We share information, knowledge and understanding predominantly through small group interaction, for where the opportunity for interaction is limited, innovation and creativity appear to be equally limited. Traditionally, teaching and its related disciplines has held a central role in our organisations in the knowledge creation and sharing process, this has been the case since organisations emerged in their current format. In Taylor's world training was highly skills-based and very tightly focused, but as organisations have developed, and the knowledge component of jobs has increased,, training has become broader in scope and sweep to embrace softer more ephemeral subjects and more generic competencies. In all organisational disciplines we are seeing these softer, social skills coming to the fore as the ability to communicate and build working relationships becomes a central aspect of performance in many situations. In most cases, performance is no longer a function of individual excellence but rather the combined effect of loose networks of empowered knowledge workers. In today's organisation it is these networks that are the engine for value creation.

As we have seen, an ability to learn is crucial to the development of our organisations. Learning needs to take place at the individual, team and organisational level. Indeed, learning is becoming an integral part of most jobs, consciously or unconsciously we are all learning most of the time. But whilst the drivers of value have undoubtedly changed, many of our organisational structures are still firmly rooted in the industrial age model. This is nowhere more true than in the field of learning, and specifically, training. In many organisations, training and learning are seen as synonymous and training is seen both as a readily sacrificable overhead and a non-core activity that can be divorced from day to day operational concerns and entrusted to Learning and Development professionals who are seen as inhabiting a parallel universe. Training is the primary deployment

vehicle for organisational learning initiatives but it is rarely aligned to strategic business initiatives. Its contribution to asset creation is largely ignored and yet we have seen that its products: knowledgeable individuals and patents, are the differentiating factor when it comes to stock market valuation.

So if contribution to value creation isn't enough to guarantee serious attention for the learning and development function perhaps sheer size of spend will elevate the issue. Just how significant is the corporate training market?

Accurate figures are notoriously difficult to track down but the American Society for Training and Development (ASTD) 2004 "*State of the Industry Report*" points to some interesting statistics. In the USA the average corporate training spend as a percentage of payroll is around 2.5%, equating to a spend per individual employee per annum of around \$820 to \$1300 depending upon industry segment (Sugrue and Kim 2004). By comparison the UK based Chartered Institute of Personnel and Development 2005 annual survey report suggests that the spend per employee in the UK is now at a level of around £607 (2005).

The total number of people of working age in the UK population in 2004, according to the Office of National Statistics [ONS report], is around 28.5 million. Therefore, assuming full employment, and an average spend of £607 per annum, we could estimate the total UK corporate training budget as around £17.3 billion per annum, (this excludes money spent by the government on post school education). This number, although speculative, compares well with an estimated total UK corporate training expenditure of £18.1 billion per annum in 2004 identified in the Training Market report from Keynote publications. The ASTD 2004 report also suggests that around a third of this total investment in training is directed towards external providers whilst the remainder is provided by internal full time training professionals.

The ASTD report of 2004 goes on to break down the distribution of training spend by functional specialism - the pattern for 2004 in the USA is shown in Figure 1 (Sugrue and Kim 2004). Although we have no comparative data for UK companies it would appear reasonable to assume that the distribution of spend will be about the same.

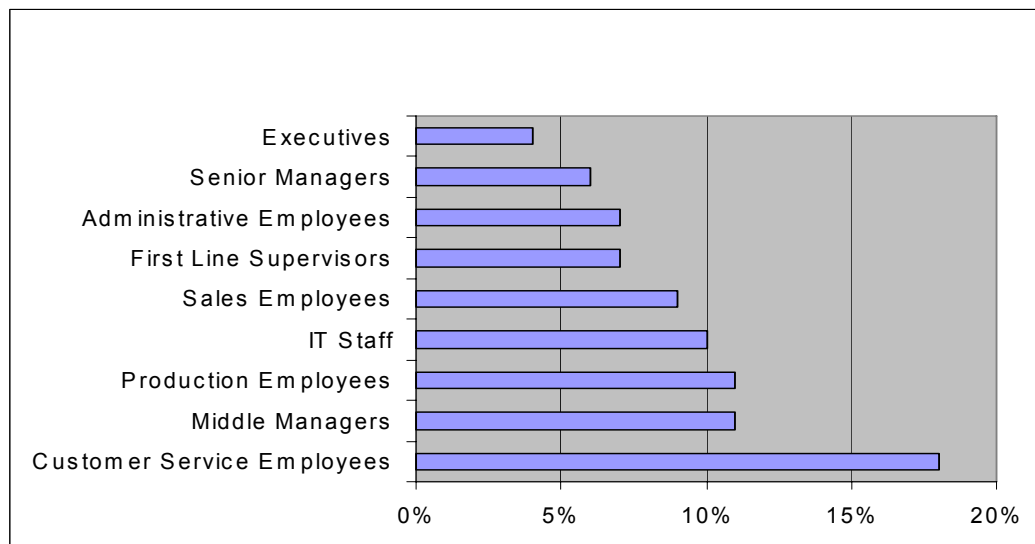


Figure 1 – Average percentage training spend by employee group

If these percentages hold good in the UK we might expect a corporate spend on IT training of around £1.8 billion and around one third of that to be spent with external providers, that is around £0.6 billion. The IT Training magazine publishes annual revenue figures for the top 50 UK IT training companies and according to the magazine's 2004 survey these top 50 providers delivered around £0.36 billion of training into the corporate sector (Charles 2005). In this highly fragmented market segment where only the top fourteen listed companies report revenues in excess of £10 million per annum and of those five are IT vendors such as IBM and Sun and two are global e-Learning providers, it would seem reasonable to assume that these top 50 companies only account for around 50% to 60% of the external corporate spend on IT training.

These simple calculations would appear to support the assertion that the UK currently sustains a corporate training industry valued at around £18 Billion per annum. By any standards this represents a significant inward investment on supporting learning within our organisations.

It is not surprising then that with these sorts of investment levels senior executives are quick to question all significant training initiatives and seek assurances that the investment can be tracked directly to organisational benefit. Despite this very real need the art and practice of demonstrating the organisational impact of learning has progressed little and, even in best practice organisations, is practised little. The ASTD state of the industry report for 2004 indicates that, even amongst those organisations that have a professed interest in evaluation and are part of the ASTD Benchmarking survey, only around 8% try to track level 4, business impact (Sugrue and Kim 2004).

2.1. A fascination with measurement

One of the great drives of the last fifteen years has been that towards organisational performance measurement. Indeed, throughout the 1990s, articles on the subject were appearing at the rate of one every five hours of every working day and in the USA during 1996 alone one new book on the subject was published every two weeks (Neely 1998). The big question is: why the interest? And why now? It seems that senior executives want to show that the investments they are making in Information Systems, process improvement, supply chain rationalisation, network communications, programme management, service management and, of course, learning and development, produce the claimed improvements in business performance. We appear to have been gripped by the old aphorism “you can’t manage what you can’t measure” – this is rooted in control theory, the idea that you set a desired state, measure the current state, assess the gap between the two and take appropriate corrective action to close the gap. By constantly monitoring the gap in a closed loop feedback system one can assess the effectiveness of the corrective action and hence converge on the desired state. In this model of measurement the primary purpose is control, that is steering the initiative to remain on the chosen track. This is fine when the subject of measurement is some form of inanimate system, but when the same model is applied to social systems we find that rather than reflecting reality, measurement tends to create reality. As soon as measurement is perceived as a means of control people’s natural tendency is to manage the measures rather than produce the performance that was the focus of the initiative being measured (Neely 1998).

But control is not the only reason for measuring. Indeed, in many areas it appears to be very much of secondary concern; the primary driver is often a desire to demonstrate “value for money”. This has very different roots - here the purpose is the justification of prior action rather than the assessment of its appropriateness. We seek to justify the efficacy of policy, action, indeed our very existence by whether or not we appear to have added value. This preoccupation with proving that we are making a difference has now reached into every facet of organisational life.

2.2. Measurement in the context of organisational learning and development

As we have seen UK industry invests of the order of £18 billion per annum on training and learning initiatives. Given this level of investment, it would be surprising if it were not a prime target for those who want to link investment to proven value. Senior executives may be forgiven for taking dramatic steps to limit this investment unless clear evidence can be produced that the investment is indeed contributing to profitability. But such proof requires organisational discipline in that initiatives need to have their anticipated outcomes specified at the outset in clear, measurable terms and then they need to be tracked through development and implementation to show that the desired

goals are actually met. Surprisingly this level of discipline remains sadly lacking in most organisations. Even in subject areas as apparently tangible as the implementation of major information technology-based systems, successful exercises in proving value are notoriously difficult to find.

However, given the levels of investment and the pressure to demonstrate results, one is left questioning why organisations are not systematically doing more (Phillips, Phillips et al. 2004). It would appear that despite the large investments involved organisations are:

- ◆ lax in specifying the expected business benefits that should accrue from the implementation of any particular programme;
- ◆ poor at base-lining the initial levels of performance;
- ◆ even worse at tracking to ensure that initiatives do not deviate from the agreed path, and;
- ◆ invariably making little or no attempt to check after the event that anything worthwhile happened.

Despite this track record of poor governance and non-existent management oversight, there remains a thirst to achieve in less tangible areas, what has proved so elusive in apparently well-structured domains. And so it is that when senior executives meet to approve large-scale training or learning initiatives the discussion quickly homes in on the knotty problem of demonstrating that the learning investment will produce an appropriate financial impact – Return on Investment.

The evaluation of learning, it would appear, is all the rage. But it has a relatively short history, making its debut in the corporate arena in the mid 1950s and developing slowly to its current state of practice. The following sections review the major developments of method and practice in the art of training evaluation.

2.3. Types of Evaluation

At one level evaluation may be simply defined as the process of assessing the results or outcomes of training and hence covers everything from the assessment of individual performance to the interpretation of the overall impact of a training programme. Not surprisingly then the literature base is an eclectic one which runs the gamut from highly structured and systematic prescriptions to models rooted in economics. One also finds a new body of thinking emerging around the concepts of complexity and chaos theory, especially in literature around the organisational change management disciplines. I am a working professional in the field of corporate learning and as such face the dilemma of every worker researcher, that of seeking new paradigms whilst operating within existing ones. In order to change the face of current practice I must be cognisant of the current dominant paradigm and couch my discussion in language that is accessible to practicing professionals who work within this paradigm. Rightly or wrongly the language of

Kirkpatrick has come to dominate any discussion of training evaluation in an industrial context; this is true in the UK and universally so in the United States. Therefore in structuring the literature review I chose to limit citation to the body of literature that is the staple diet of Learning and Development professionals. As the research progressed I increasingly formed the opinion that learning evaluation should always be considered within the broader context of the valuation of pan organisational change initiatives and as such the emerging thinking in change management and complexity theory (Senge, 1999; Shaw, 2000) is likely to colour further development of the theory and practice developed as a result of this research thesis.

Within the parameters set out above the academic literature on assessment points to two types of evaluation, namely: Formative and Summative. The former is generally seen to include a mechanism for feedback and is part of the learning process, whilst the latter is concerned with assessing if a predetermined standard has been met. In educational terms a formative assessment is part of an ongoing process of improvement whereas a summative assessment assigns a grade to a final piece of work (Wilson 2004).

In the body of literature that is developing around the subject of Performance Technology we see evaluation viewed as a means of “comparing results with intentions” (Kaufman, Keller et al. 1996). Four types of evaluation have been wrapped into the overall Human Performance Technology (HPT) model, namely Formative, Summative, Confirmative and Meta Evaluation / Validation (Van Tiem, Moseley et al. 2004).

Formative evaluation is seen as being a diagnostic process to provide the information necessary to drive improvement, it therefore encompasses;

- ◆ Performance analysis
- ◆ Cause analysis
- ◆ The Selection / design of improvement interventions

Summative evaluation is seen as determining the effectiveness of an intervention after its implementation, as such its focus is:

- ◆ Immediate reaction
- ◆ Immediate competence

Confirmative evaluation is designed to identify and explain long term effects, as such its focus is to place a value on the knowledge or skills transfer into the job and determine the organisational impact. Confirmative evaluation is centred around:

- ◆ Continuing competence (often termed transfer or learning transfer)
- ◆ Continuing effectiveness – organisational impact

- ◆ Return on Investment

Typically a confirmative evaluation cannot take place until some considerable time after the implementation of a learning intervention in order to allow the full effects of the learning to transfer into performance, this could be six to twelve months.

Meta Evaluation / Validation is the process for checking and assuring the quality of the evaluation process itself, as such it provides insights into the processes of evaluation and the relevance of the products. By definition meta evaluation cannot take place until all three phases are complete.

2.4. Evaluation Approaches in Common Usage in Corporate Environments

2.4.1. The Kirkpatrick Approach

In 1954 Donald L. Kirkpatrick completed a PhD dissertation for the University of Wisconsin entitled “Evaluating a Human Relations Training Programme for Supervisors”. In it he proposed a simple chain of causality from attending a training programme to eventual improved performance in the workplace; it was his contention that this causal chain was a prerequisite for training to be considered as successful. This insight was to subsequently sweep the training industry, largely by word of mouth, based upon a series of four articles that Kirkpatrick published in the mid 1950s in the Training & Development journal of the American Society for Training and Development (ASTD) (Kirkpatrick and Kirkpatrick 2005). It was almost forty years later in 1994 that he eventually published the method that he had developed, complete with a series of case studies depicting its implementation.

His theory was that each step in the process should successively build upon and add value to the previous step, such that (Phillips 1993; Kirkpatrick 1998):

- ◆ If the materials are presented in a manner that the student finds useful, non-threatening, stimulating and enjoyable, then he/she is more likely to learn
- ◆ If the students’ stock of knowledge and skills is increased and they are more confident in their abilities, then they are more likely to try to apply those skills and knowledge in the workplace
- ◆ If they try to apply their skills and knowledge in the workplace, then given support and appropriate success they are likely to change their behaviours in a positive manner
- ◆ If they realign their behaviours they are likely to perform better in their work and this should be observable as an increase in standard measures of productivity

Over the succeeding years Kirkpatrick and other researchers developed this model into a four level framework for training evaluation (Phillips 1993; Kirkpatrick 1998).

Acceptance of this model is now near universal and virtually all training evaluations that

are carried out in commercial organisations are either direct attempts to deploy the Kirkpatrick model, or to a large extent, pay homage to the four levels. Indeed, at the 2004 National Conference of the ASTD his contribution to workplace learning and performance was recognised with a lifetime achievement award. The citation was to read, “Spare and elegant, the Kirkpatrick model has been the most widely used evaluation method for more than forty years” (Kirkpatrick and Kirkpatrick 2005).

In its most recognisable form the framework may be described as follows:

1. **Level 1 - Reaction** – measures how those who participated in the programme reacted to it.
 - a. Usually measured using end of course questionnaires (Happy Sheets), usually based upon a 5 or 7 point Likert scale.
 - b. Very occasionally the survey may be repeated a short while after the training is completed.
2. **Level 2 - Learning** – the extent to which participants change attitudes, improve knowledge and increase skill as a result of attending the programme.
 - a. Usually measured using objective-based test questions immediately after completion of the training.
3. **Level 3 - Behaviour** – the extent to which a change in behaviour has occurred because the participants attended the programme.
 - a. Measured (assessed) in the workplace. Usually by self-assessment or sometimes by 360 degree peer review. Assessment are subjective, difficulties arise in baselining the pre-course behaviours.
4. **Level 4 - Results** – the final result that occurred because the participants attended the programme.
 - a. This requires a view on the extent to which changes in key business metrics can be attributed to changes in individual behaviours. This requires that business performance is understood and measured both before and after the training initiative. It also requires a judgement on how much of the improvement (if any) is directly attributable and over what period any resulting benefits should be

The model certainly has an elegant simplicity and at first sight appears to be both logical and consistent. Perhaps it is this very simplicity that has led it to be so widely adopted, whatever the reason, learning and development professionals now routinely talk of seeking level 2 or 3 evaluation data when discussing the subject of evaluation. Even people who know nothing of Kirkpatrick’s work are familiar it seems with the idea of levels of evaluation and level 1 – reaction data is routinely sought at the end of pretty much every classroom based event; such end of course surveys are colloquially known as “Happy Sheets” or in the USA “Smile Sheets”.

However, for many, the fixation with Kirkpatrick begins and ends with these happy sheets, indeed, the American Society for Training and Development (ASTD) annual state of the industry report tracks the use of evaluation techniques amongst those of its members who subscribe to its Benchmarking Service (BMS). The variation in adoption of evaluation at each of the Kirkpatrick levels between 1999 and 2003 is shown in tabular form in Table 1 and graphically in Figure 2 (Sugrue and Kim 2004). The figures show that whilst around 80% of organisations conducted Level 1 assessment this percentage fell rapidly as the Kirkpatrick levels increased and on average only about 8% of all training organisations who subscribed to the ASTD benchmarking service made any attempt to ascertain performance results-based evidence at Level 4.

	Reaction Level 1	Learning level 2	Behaviour / Transfer Level 3	Results / Impact Level 4
2003 (n=213)	74	31	14	8
2002 (n=276)	75	41	21	11
2001 (n=270)	91	36	17	9
2000 (n=394)	78	32	9	7
1999 (n=405)	77	38	14	7

Table 1 - percentage of BMS organisations using evaluation in 1999 to 2003

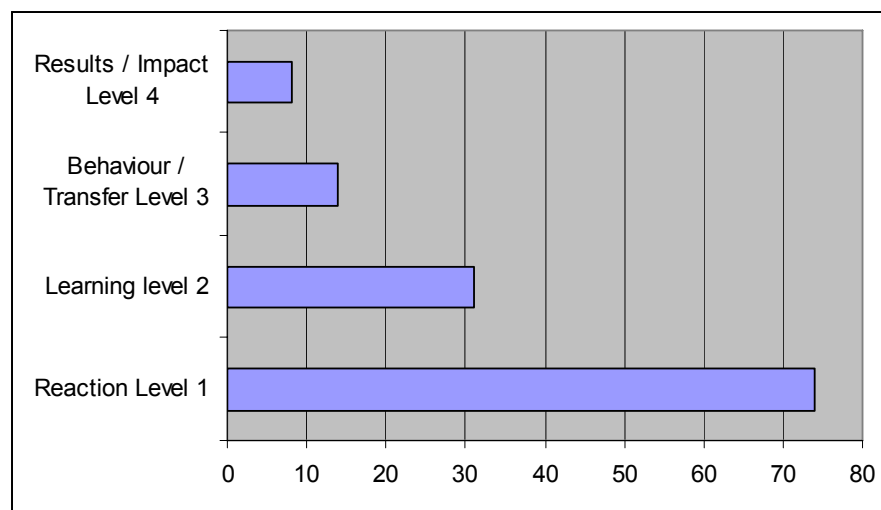


Figure 2 – percentage of BMS organisations using evaluation in 2003

It should be remembered that this survey was conducted specifically against a population with a stated interest in evaluation, the true picture across all of industry is probably nearer 1% for Level 4 results based data. We have then a situation whereby the most widely accepted and used framework for training evaluation consistently fails to produce the very evidence that it purports is essential to demonstrate, namely, value

(Abernathy 1999). Why is this so? And how can a model be so popular when apparently so few people appear to have success in deploying it fully?

2.4.2. The Hamblin Approach

This model can be seen to build upon Kirkpatrick in that the levels and mode of assessment are parallel in approach. Hamblin (Clements and Jones 2002) adopted five levels, thus:

- ◆ Level 1 – Reaction – like Kirkpatrick this element of the evaluation is concerned with the trainees reaction to the training event. Hamblin introduced a longitudinal element to this by suggesting that reaction should be sought during, immediately after and some time after the event
- ◆ Level 2 – Learning Behaviour – this level is designed to assess changes in knowledge, skills and behaviours as a result of the training
- ◆ Level 3 – Job Behaviour – here we are attempting to assess the impact of the training on job performance
- ◆ Level 4 – Functioning – this is designed to identify any changes in the organisations as a whole that could be attributed to the training. It was suggested that these should be represented in monetary terms
- ◆ Level 5 – Ultimate value – this level is aimed at identifying and measuring any relationship between the training and the organisations overall success, profitability or survival

One can see strong parallels between this approach and the Kirkpatrick agenda, the intent appears to have been to make more explicit the link to real organisational performance. However, like Kirkpatrick, Hamblin points to the areas where measurement should focus but provides little guidance on how to structure or collect the data. Also like Kirkpatrick it is an after the fact model in that evaluation only occurs after the training is completed.

2.4.3. The CIRO Approach

This is a generalised approach to measuring the effectiveness of management training programmes pioneered in Europe in the late 1960s by Warr, Bird and Rackham (Warr, Bird et al. 1970). This four letter acronym describes a four stage approach thus:

- ◆ **C** – Context evaluation
 - ◆ This is essentially a diagnostic phase and involves collecting information about the current operating environment in order to determine if training is needed and if so what its objectives should be. The objective setting process can extend to three levels:

- ◆ Ultimate objectives – the goal of the initiative (the deficiency to be overcome)
- ◆ Intermediate objectives – the changes in employee behaviour necessary to bring about the Ultimate objective
- ◆ Immediate objectives – the knowledge, skills and attitudes needed in order to acquire the behaviours specified in the Intermediate objectives
- ◆ **I – Input evaluation**
 - ◆ This is essentially concerned with the process of weighing information and evidence to determine the most appropriate intervention strategy to achieve the stated goals. In common parlance it may be thought of as the training design process. Considerations such as business criticality, urgency, speed of deployment, availability of resources, potential return on investment may all affect the choice of solution.
- ◆ **R – Reaction evaluation**
 - ◆ This is effectively Kirkpatrick level 1, the happy sheet. The purpose is to gather essentially subjective data directly from training participants in order to attempt to improve the training process.
- ◆ **O – Outcome evaluation**
 - ◆ This is a post hoc review of the extent to which the three types of objectives determined in the Context evaluation have been achieved; the primary purpose of this step is seen as illuminating and improving future programmes. Outcome evaluation is itself seen as a four stage process, namely:
 - ◆ Defining trend objectives
 - ◆ Selecting or constructing measures for those objectives
 - ◆ Making the measures at the appropriate time
 - ◆ Assessing the results and using them to improve later programmes

With this model we see an attempt to bring the evaluation process forward in time and to engage with business sponsors in specifying the objectives of the initiative and success criteria prior to the training. A thorough post-project evaluation is conducted to determine the actual success in achieving the prescribed objectives. As such it is a significant step towards a more holistic and business focused model.

2.4.4. The CIPP Approach

Similar in structure to the CIRO approach, the CIPP method was developed in the USA during the early 1980s by a group of leading educators on the National Study Committee on Evaluation of Phi Delta Kappa, an International Society for professional educators

[Stufflebeam]. This method gained considerable early recognition and popularity, as evidenced by a report of the ASTD in 1983. Of 300 members surveyed, an 80% response rate showed that 126 of the 225 respondents preferred the CIPP model against only 82 in favour of Kirkpatrick, with 17 showing no preference (Galvin 1983). Despite this early ascendancy over the Kirkpatrick model, especially in the USA, the technique now enjoys little profile. At its height the method was considered to be particularly useful in the evaluation of management training.

This four-letter acronym describes a four-stage approach thus:

- ◆ **C** - Context evaluation
 - ◆ Primarily this stage sets the goals for the training programme. It is aimed at diagnosing the specific performance problems of the target audience and determining their specific needs and opportunities. In some respects this became a standard first step in the training cycle and shares much in common with the now traditional Training Needs Assessment (TNA) approach.
- ◆ **I** - Input evaluation
 - ◆ This stage aids programme planning, it is aimed at determining the available resources, possible alternative strategies, and how best to meet needs identified in the Context evaluation. Possible options include the use of external providers, and increasingly decisions to employ “e” enabled learning mechanisms. The output of this stage would typically be policy statements, proposals or requests for tender, schedules and certification requirements.
- ◆ **P** - Process evaluation
 - ◆ The primary purpose of this stage is to guide implementation. It can employ a range of data gathering techniques, mostly subjective and post hoc, to describe what is actually occurring on the programme and to provide information to trigger pre-planned corrective actions.
- ◆ **P** - Product evaluation
 - ◆ This stage examines the results obtained and provides guidance for the conduct of future programmes. Its primary focus is to determine whether the stated needs were met and in doing so it should take account of unintended as well as intended outcomes.

In common with CIRO, the CIPP model shifts the emphasis of the process forward in time it has a strong diagnostic phase and encourages the careful selection of intervention technique to suit the performance problem, it does not assume that all problems are training problems. The Process phase of the evaluation is the first time we see recognition of programme steering as being a purpose of evaluation. Finally in

focusing on outcomes it also accepts that there may well be unintended consequences that strengthen the value of the programme.

2.4.5. The Fifth Level – ROI

One of the criticisms of the Kirkpatrick model is that it is not couched in the language of business. In a world where training must battle for funding with other organisational imperatives, embattled learning and development professionals were desperate for a method that provided a clear financial justification for their programmes. It was against this background that Jack Phillips proposed to extend the Kirkpatrick model by adding a fifth level that explicitly calculated the financial return on investment (ROI) (Phillips 1993; Phillips and Stone 2002; Phillips, Phillips et al. 2004; Phillips and Phillips 2005). The Phillips approach not only extends Kirkpatrick but also adds a level of process that was missing from the Kirkpatrick model, in this respect the Phillips ROI model is more prescriptive but arguably easier to implement than many of its predecessors.

Fundamentally Phillips has always seen the calculation of ROI for a training programme as being a four-stage process:

- ◆ Data collection
- ◆ Isolating the effects of training
- ◆ Converting data to a monetary value
- ◆ Calculating the return on investment

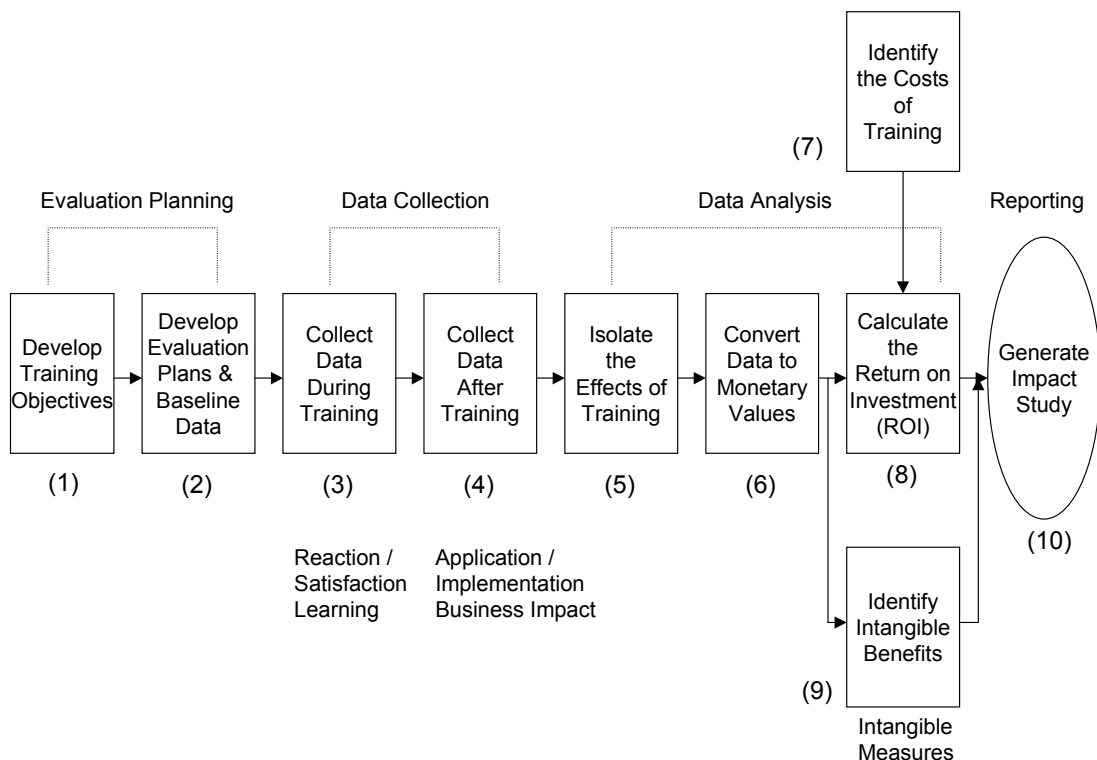


Figure 3 - The Jack Phillips ROI Model and Process

The Phillips model is interesting in two respects; firstly that it puts such an extensive focus on converting benefits into monetary terms from which ROI can be calculated, and secondly in that it provides an end to end process for evaluation from the specification of learning objectives through to the preparation of a training impact study. The model is presented in Figure 3 in an expanded form (Phillips and Stone 2002).

For Phillips the ROI calculation is based upon a strict interpretation of financial benefits from the programme. He recommends using annualised values for training programmes of duration between one day and one month so that the first year impact of the training programme is developed. The financial outcome can be expressed as a ratio of Benefits to Cost (BCR), but more commonly the Return on Investment is calculated as a percentage using the following formula.

$$\text{ROI} = \frac{\text{Net Training Benefit}}{\text{Training Cost}} \times 100$$

Hence an ROI of 150% means that the costs of the training have been recovered and an additional 1.5 times the costs have been realised as earnings.

Although the calculation is simple, the devil is in the detail: how do you fully assign cost? Over what period is the cost incurred? Does one include opportunity cost, that is the revenue one might have earned if one had not been engaged on the training? If assigning cost is difficult, the problem of accurately identifying benefits can be the undoing of many evaluation initiatives. Phillips stresses that one must isolate the effects of the training. This may be possible with highly targeted initiatives such as health and safety programmes, but with more general initiatives it often proves impossible to separate the effect of training from other related initiatives, such as policy changes, that may be concurrent. Another big issue is that it is not unusual for some considerable time to elapse between the end of the training and the trainee feeling sufficiently confident with their new skills and knowledge, or having the opportunity to, develop enhanced performance (Parry 1997). To some extent Phillips claims to overcome some of these problems by employing benefits forecasting, in this case, participant estimation of impact. The idea is that training participants are canvassed for how much of the process improvement they think is due to the training, these estimates are then adjusted to eliminate spurious or excessive claims. Phillips claims that the approach provides considerable accuracy and credibility (Phillips and Stone 2002) and that by applying five adjustments he produces what he terms conservative estimates.

The problem with this approach is that it is lending an air of objectivity to what is essentially a totally subjective judgement and that by then wrapping the results in pseudo financial jargon even quite rational managers can come to accept what are clearly highly implausible claims. Phillips is on record as stating that ROI in excess of 800% is typical and he quotes an ROI analysis done by a world class corporate University as being 5,612%, (2003) To put this claim into context it is implying that the programme delivered benefits 56 times greater than the original investment, and if Phillips criteria of annualisation were followed then this benefit was delivered in the first year.

2.4.6. IBM's Learning Effectiveness Measurement

As we move into a new century, consultants at IBM have produced yet another spin on the search for business drivers in their Learning Effectiveness Measurement (LEM) technique, as pioneered by Dr Dean Spitzer and his team (see Figure 4). This method claims to closely align learning with business priorities. It continues Jack Phillips' theme of concentrating upon business outcomes but eschews the emphasis on ROI. Instead, LEM seeks to bridge the gap between learning initiatives and business outcomes through the formulation of visual maps or causal chains. The method seeks to start with the desired business outcome and work backwards to the learning objectives, in this way the question that drives evaluation becomes "what should happen" rather than "what has happened". By moving the emphasis forward in time in this way one necessarily needs to move away from retrospective measures and towards more predictive measures. It is Spitzer's claim that in doing so the method "creates a roadmap that helps you select and navigate to your destination, as well as confirm that you have arrived" (Spitzer 2004).

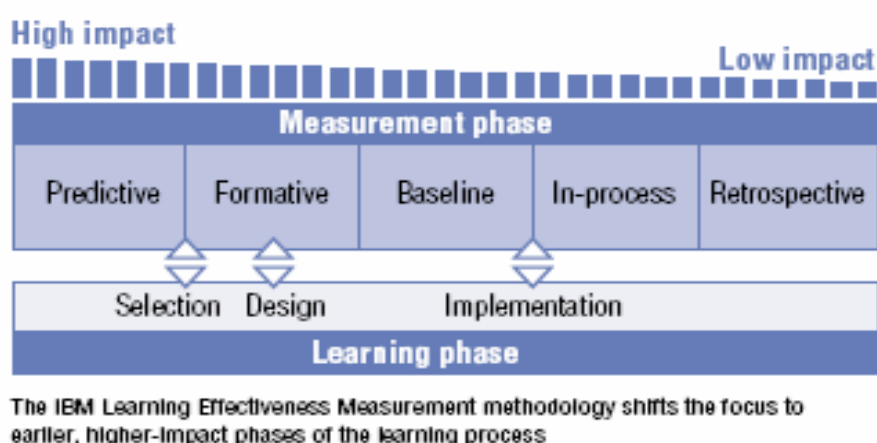


Figure 4 - Spitzer's LEM method moves the emphasis to predictive measures

Spitzer fundamentally questions the Kirkpatrick models assertion of causality between change in behaviour and business impact indeed he is at pains to point out that if the wrong skills are being deployed an apparent success at Kirkpatrick Level 3 could lead to a negative business impact (Level 4) (Spitzer 2004). In the 1990s research first in Total Quality Management (TQM) and then in Business Process Reengineering (BPR) very effectively demonstrated that performance lies at the nexus of Systems, Processes and People (Hammer and Champy 1994). These, initially empirical, findings have now found their way into numerous models of organisational change (Davenport 1993; Handy 1993) and are accepted as the basis of performance improvement. Programme management, the profession through which major organisational change is delivered, takes as a fundamental premise the need to achieve simultaneous and integrated movement between People, Processes and Systems (Hammer and Champy 1994). Why then, when all the evidence appears to show that in modern commercial environments people's performance is inextricably linked into and with a web of processes and systems - do we continue to try to separate out human performance as something that can be independently measured?

Spitzer's basic model, shown in Figure 5, illustrates his belief that the earlier you can effect measurement the more likely you are to be able to use that knowledge to steer learning programmes and hence maximise business impact; by moving the emphasis forward in time he claims that the model becomes primarily predictive in nature. I worry about such claims as, for me, the predictive value of the model lies primarily in the robustness and repeatability of the causal chain that is established between action and outcome, rather than the point at which measurement is effected. An expanded view of the model, also shown in Figure 5, reveals not only an eclectic mix of terms drawn from training evaluation and business performance measurement but also the underlying pedigree of the Kirkpatrick model – a model that Spitzer has earlier cast doubts upon.

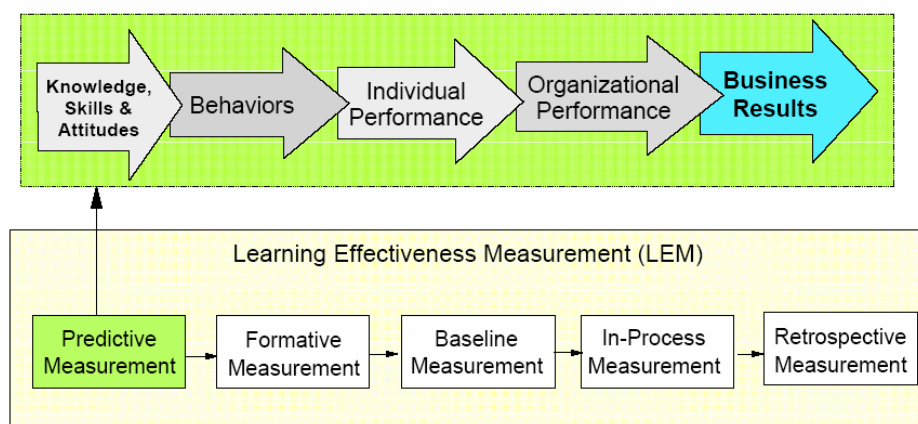


Figure 5 - Spitzer's Learning Effectiveness Measurement (LEM) Model

We see that claims of prediction are founded upon Kirkpatrick's claims of causality between knowledge, behaviour and organisational performance. Spitzer's contribution appears to be the inclusion of an intermediate link between individual and team performance. Where is the appreciation of the role of organisational structure, motivation, culture, policies, rules and norms in the link between skill and behaviour? Where is the recognition of the role of systems and processes in the link between behaviour and performance? In a set of slides taken from a web briefing Spitzer, helpfully provides a more detailed view of the causal chain and populates it with example metrics (Poynton 2002).

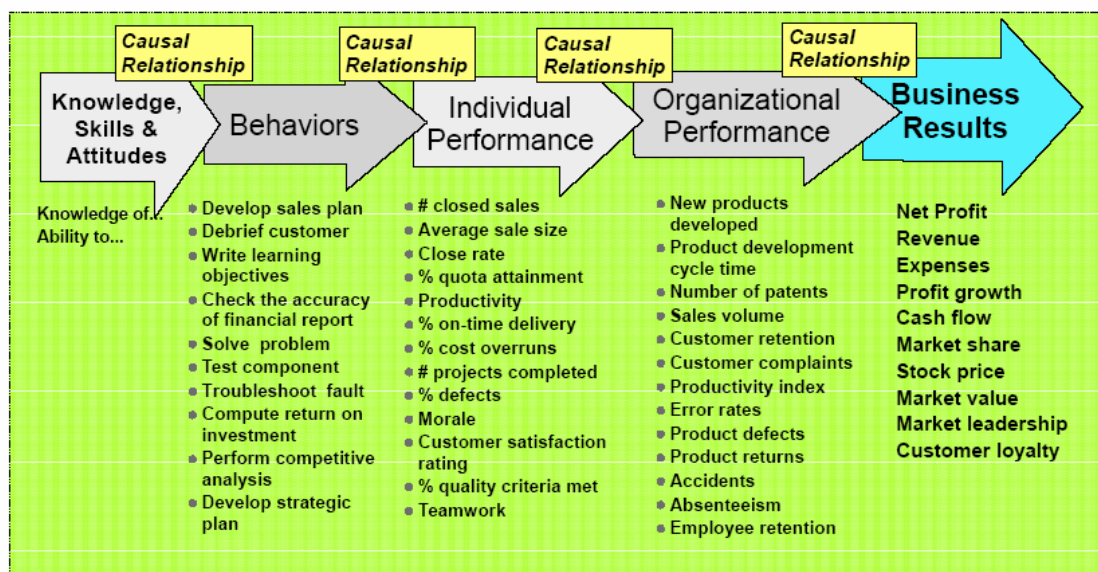


Figure 6 - LEM populated with metrics

The metrics shown in Figure 6 are both interesting and helpful. The first, and perhaps most obvious observation, is that the metrics are all related to the arrows in the value chain, i.e. Net Profit, Revenue etc are related to Business Results. This may appear to be an obvious statement but my concern is that there appear to be no metrics that relate to the causal relationships themselves. When I see a mathematical expression such as:

$$x = f(y)$$

I intuitively know that it is the function “f” that is of most interest as it is “f” that governs the relationship between x and y and therefore it is “f” that allows me to infer one from the other. In the Spitzer model above I appear to have an abundance of information about x and y but little enlightenment about the function “f”, how then can I make inferences and upon what basis does Spitzer make his claims for prediction in the model?

In common with the organisational performance measurement movement, which I suspect gave rise to Spitzer's thinking, in the prosecution of this model we see Spitzer utilising causal chain maps. In this case he takes the five strata from Business Results

through to knowledge and skills and plots them on a layered map – an extract taken from (Spitzer) is shown below in Figure 7 to illustrate the apparent relationship between behaviour and business outcome.

Causal chain models such as this are the staple diet of organisational performance measurement professionals. This example is typical of the genre as, with this, it is common to see the diagrams stratified where each layer forms and points to a distinct aspect of a “Balanced Score Card”. What is unusual is to find the layers so obviously paying homage to the Kirkpatrick model.

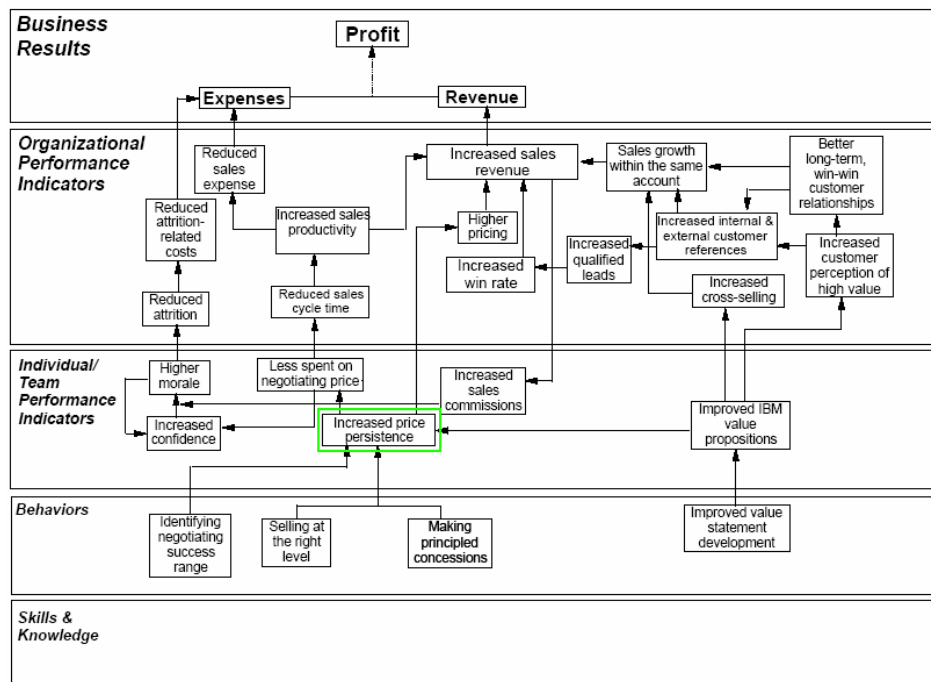


Figure 7 – Spitzer’s example of causal chain mapping

Whilst the model shown in Figure 7 is incomplete, it illustrates nicely the logic of the model. Reading from the top down we see that we can increase profit by growing revenue or cutting cost. To grow revenue we must increase sales revenue which in turn can come through higher pricing, increased sales productivity, increased win rate or growth within the same (existing) accounts. Taking one factor only, that of higher pricing, we see that higher pricing is driven by increased price persistence which in turn appears to be driven by three behaviours, namely: identifying negotiating success range, selling at the right level and making principled concessions. The next level of the model would then go on to identify the skills, knowledge and attitudes associated with each of these behaviours and these would form the basis of any training intervention.

Diagrams such as this are useful primarily because they explicitly capture the otherwise unstated assumptions about how a business works. Starting at any point in the body of the diagram we now have a formal linkage that states – if we take this action, then the

following will happen, which contributes to some output which in turn gives rise to the desired outcome. It is both attractive and logical as it allows the establishment of intermediate measures. Such measures may be taken to be lead indicators in so far as, if the model holds good, then when we see them occur we can have some confidence that the next step in the chain will also occur. I prefer the term lead indicators rather than predictive measure for as we saw with Jack Phillips' work, the term predictive can encourage people to make ill-educated guesses as to possible outcomes based on insufficient or inappropriate premises.

To summarise, in the IBM approach pioneered by Spitzer, we have a method that attempts to transfer the emphasis of evaluation forward in the life cycle to make more use of predictive or leading measures. It recognises that the purpose of evaluation is not just to make retrospective judgements in order to inform future learning design but rather to gain early sight of the performance of current initiatives in order to steer them more effectively and hence maximise current performance outcomes. It recognises the importance of accurate baseline measures to establish where you are as a datum for change measurement. It implicitly accepts the causal relationship between individual behaviour and organisational performance as proposed by Kirkpatrick and uses these levels as strata within a causal chain analysis thus implicitly giving rise to a balanced scorecard of measures. These measures are, by and large, business oriented but with no information about the business rules governing the relationships it is difficult to see just how effective this tool can be as a mechanism for managing ongoing learning initiatives. And yet Spitzer claims that using this method "Learning design becomes more than deciding how to disseminate knowledge and develop skills, it becomes a way to measure and manage all the factors that influence desired results"(Spitzer).

2.5. Personal critique of the Methods Presented

2.5.1. General Observations

Whatever one thinks of the Kirkpatrick method there is no escaping the fact that its nomenclature has found its way into the training evaluation vocabulary to such an extent the term "Level 4" is wholly synonymous with business impact. There is equally no doubt that senior business managers are increasingly interested in finding evidence that their investments in learning initiatives are paying dividends. Against these twin imperatives we have a position where remarkably few learning and development professionals are seriously engaged in finding substantive answers to these questions. Why is this simple need so apparently difficult to fulfil?

Many reasons are given for not conducting evaluation at the higher levels of the Kirkpatrick model, (Levels 3 and 4) the most common of which centre around:

- ◆ The difficulty of expressing meaningful and measurable business outcomes

- ◆ The difficulty of linking individual activity or performance with overall outcomes
- ◆ The difficulty of isolating the effect of training. If a positive outcome occurs how can you be sure it is the result of training and not some other factor?

There is no doubt that these are indeed daunting but I feel there is also a deeper underlying problem of conflict of purpose. On the one hand the training department is interested in evaluation as a means of proving their contribution. They need to show that their programmes are valued by the people attending them and by the clients who fund the students – this can generally be adequately proven with level 1 and 2 data. By contrast, the business is interested in showing that the training has contributed to delivering direct business benefit.

The ASTD annual report of 2004 (Sugrue and Kim 2004) would appear to indicate that around 85% of all training evaluations only produce data that is meaningful to the training department; the data being used primarily for the purpose of fine tuning training initiatives. Surely, if evaluation is to have any place in the corporate armoury it must have a higher purpose than that of justifying the existence of the training department.

2.5.2. Particular Issues with the Kirkpatrick model

Despite protestations that his model is business focused and geared to show the organisational benefit of training programmes, a brief glance through Kirkpatrick's many and varied writings reveals no higher purpose than that of justifying the existence of the training department. Indeed in the second edition of his landmark text on the four levels he specifically cites the three reasons for evaluation as being (Kirkpatrick 1998):

- ◆ To justify the existence of the training department by showing that it contributes to the organisation's objectives and goals
- ◆ To decide whether to continue or discontinue training programmes
- ◆ To gain information on how to improve future training programmes. Here he is specifically looking at content, the course leader, the facilities, the schedule, training aids and general co-ordination

This is clearly a model built by a training professional for use by other training professionals and this is the heart of the problem. If we are truly to assess the organisational value of learning initiatives we need to move firmly into the operational environment and fully involve business and line managers in the evaluation process. As Parry is quick to point out, this formal evaluation must be done by somebody other than the trainer and learning or performance contracts between the trainer, trainee and line manager should be negotiated prior to the intervention taking place (Parry 1997).

Kirkpatrick does indeed appreciate the importance of environment upon programme success when he identifies five types of receiving climate as being (Kirkpatrick 1998):

- ♦ Preventing
- ♦ Discouraging
- ♦ Neutral
- ♦ Encouraging
- ♦ Requiring

He also points out that for training to have any chance of transfer into practice the environment must be no worse than Neutral. Sadly, most Learning and Development professionals who are charged with implementing evaluation are unlikely to be familiar with the detail of Kirkpatrick's writings and their knowledge of his work is likely to start and end with the four levels of his model; a model whose first step cannot take place until after the training has completed. Is it any wonder then that evaluation is usually an afterthought, implemented if at all as a post hoc justification of previous action?

The Kirkpatrick model, therefore, is one that suggests what to do but provides little guidance on how to do it. It is incomplete in that it fails to explicitly reference planning activities or to provide genuine links to the operational receiving environment or the management stakeholders. Furthermore, it lacks any form of validation or self referential checking of the evaluation process itself. It is a model borne of the industrial age where all performance problems were seen as training problems. It is trainer-centric in so far as the fundamental premise is that the learner is the passive recipient of a training process. Its focus is on the individual and, where behaviour and performance are viewed, they are viewed in terms of changes to individuals (Kaufman, Keller et al. 1996). Patently such an approach is bound to have limited applicability in modern organisations which tend to be process and team oriented. The Hamblin approach is so closely aligned with Kirkpatrick that I have chosen not to discuss in separately. All the above criticisms apply in equal measure to Hamblin.

2.5.3. Particular Issues with the CIRO model

Although at first sight CIRO looks wildly different from Kirkpatrick, closer examination reveals the same intellectual heritage. In the Context evaluations cascade of objectives we see the same assumption that change in knowledge, skills and attitudes will lead to modified behaviours, which will in turn lead to improved performance – an almost perfect mapping to Kirkpatrick Levels 2 through 4. In the Reaction evaluation we find a direct parallel to the Kirkpatrick Level 1 assessment.

The value of the CIRO model is that it broadens the canvass of evaluation - it now explicitly states that understanding the problem and performance domain is a

prerequisite of training design and that clear performance objectives should be set prior to designing the learning interventions. This may appear obvious but it is surprising how many large scale training initiatives are launched with little real idea of the current or desired level of performance in any particular domain. In moving the emphasis forward and explicitly including ultimate and intermediate objectives there is a recognition that the desired performance may not be achievable within a training context and that some sub-optimal level may be aimed for that is subsequently enhanced through a period of on-job training. As with Kirkpatrick, CIPRO does not have an explicit validation or lessons learned phase, but it is arguably more business focused and more holistic in nature.

2.5.4. Particular issues with the CIPP approach

Interestingly the CIPP model explicitly looks at both process and product – it is therefore both formative and summative in focus. Evaluation of the likely outcomes is not included prior to actual delivery of training, and so the model does not lend itself to ready use in an ROI context without further modification. The ‘context’ element suggests that training is part of the solution and so there is an assumption of a prior step which makes this determination. The Input phase is confined to planning and shaping the deployment of the chosen solution. Unlike the Phillips and Kirkpatrick models, this model does require the effectiveness of the process to be looked at this is often referred to in other texts as “confirmative evaluation” or “validation” in order not to be confused with the other stages of evaluation. The focus then is on outcome in so far as did the training deliver its objectives?

2.5.5. Particular issues with the Phillips ROI

The ROI model is in effect an extension of the Kirkpatrick model and therefore shares the basic advantages and disadvantages of its roots. It strongly supports the compliance and check purposes of evaluation but is weak in challenging the assumptions of causality in the business model. Phillips claims to have rooted his approach in the language of business but fails to recognise that, in business, the primary purpose of the ROI method is to choose between alternative and competing implementation options at the outset of an initiative. ROI serves no purpose in programmes steering and is frankly of little value post hoc when the real concern is the phased taking of benefits, for which a benefits realisation plan is much more effective. ROI gives a uni-dimensional view of the potential payback of a learning programme, it provides no useful management guidance other than a coarse go –no go filter. Where the model scores is in the explicitly documented evaluation process which makes plain that evaluation must be thought about at the same time that training objectives are developed. It also stresses the need for an evaluation plan and baseline data – these are invaluable insights and fundamental to the ability to accurately assess impact.

The Phillips model has spawned a range of automated data collection models such as “Metrics that Matter” from Knowledge Advisors. Incidentally both Kirkpatrick and Phillips are associated with the Board of this company (Barnett 2005). This tool is gaining wide usage throughout the USA and increasingly in Europe. It automates Kirkpatrick Level 1 and 2 data collection and then, through a series of questionnaires and estimation questions, can go on to predict likely outcomes in terms of ROI. The claimed advantage of such systems is that they can provide benchmark data between companies and indeed industries, for reaction and learning data. It also provides a pleasing graphical display of the information, see Figure 8.

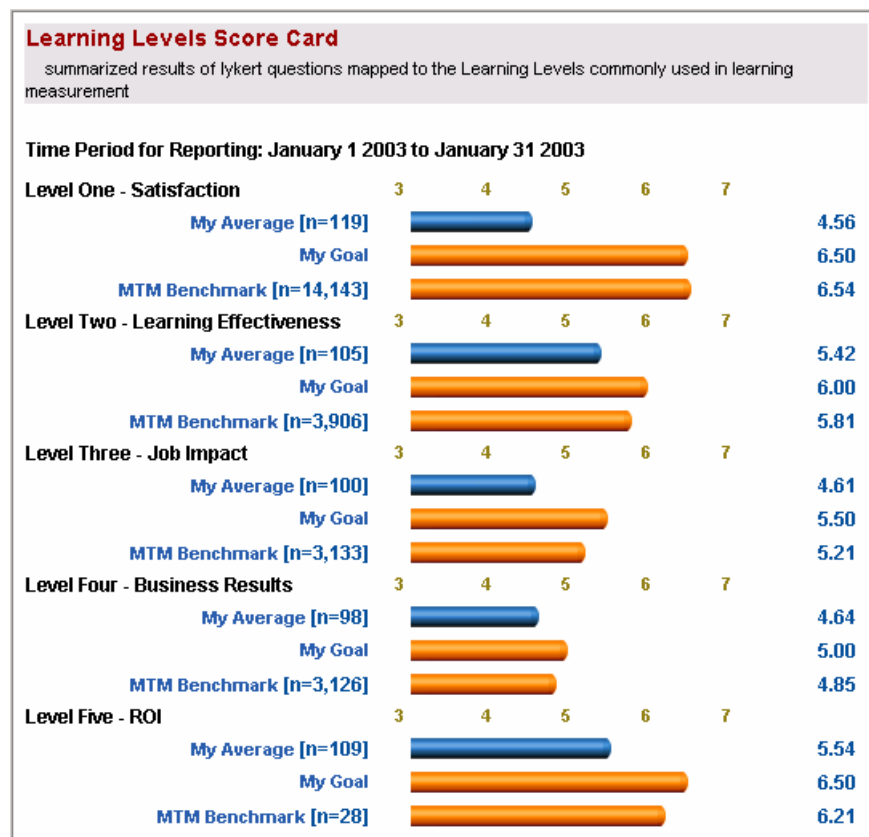


Figure 8 - Typical output from Metrics that Matter

Output such as the above has helped to sell products such as “Metrics that Matter”. The problem is that when one buys into this tool, you also buy into the basic Phillips model of evaluation and estimation of benefits. This is not clearly explained and the tool does not permit manipulation of the underlying business rules that govern it. Evaluation has proved to be a difficult enough process without blindly adopting unstated paradigms of measurement.

2.5.6. Particular issues with IBM's LEM approach

Perhaps the greatest potential strength of LEM is the assertion that it starts from the premise of the desired business outcome and then works backwards to explicate the training objectives. Certainly, LEM of all the models examined has, through its use of causal chain mapping, the capacity to fulfil the purpose of challenging the basic business assumptions. Spitzer appears unaware of this potential value. Causal chain diagramming, whilst attractive and useful, does however have a number of generic weaknesses and the manner in which it is depicted by Spitzer also has specific weaknesses. For me, the greatest weakness is that the boxes point to the focus of the measurement that is the input, process, output or outcome to be measured for example reduction in sales cycle time, or increased sales productivity. Whilst one can certainly identify solid business metrics for both of these quantities, I am more concerned with the nature of the relationship between the two. There is an implicit assumption that a reduction in sales cycle time will naturally lead to an increase in productivity, but why? What is the nature of the relationship? Is there a built in time delay? What other factors influence this function? I believe that the greatest value to be had from causal chain modelling lies in the articulation of the often-implicit business rules that govern the business model. Often senior executives will argue and make critical business decisions based upon conflicting concepts of how business drivers interrelate. A common understanding of the business model, even a flawed one, will inevitably lead to better decision making and a better understanding of the issues that really do underpin performance.

2.6. Trends that are Shaping the Future of Corporate Learning

One of my criticisms of current evaluation methods is that they developed from a corporate context and landscape that is fundamentally different from the one that applies in the majority of modern organisations. Whilst business strategy has adapted to suit the emerging corporate context, training evaluation methods have not kept pace in recognising the new drivers of value or the centrality of intellectual capital in producing sustainable competitive advantage. If we are to develop a new understanding of the role and practice of evaluation, it must be posited against this new context and it must be flexible and adaptable enough to remain relevant as our organisations develop further. With this in mind, it is perhaps worth a quick review of the major trends that are shaping the landscape of learning and development in our organisations.

The most obvious trend in corporate training over the last 40 years has been the on-off love affair with technology-based training implementations. These started with tape and film loops, experimented with programmed learning techniques, quickly moved into video and then on to standalone computer-based training. The state-of-the-art now tends to be web-deployed applications that showcase various aspects of technology as

a delivery mechanism. Although much excitement and hype has been generated and many chief executives rushed towards technology based training in the hope of slashing training budgets, the promise in many cases remains largely unrealised.

Many examples of e-Learning are associated with attempts to replicate the classroom experience on screen. This is what I call tell and test, the pedagogy employed is to provide information followed by examples, then simple testing to check comprehension and memory. Often these programmes include some form of summative test at the end. More advanced packages may have a pre-test which provides fast tracking through the material for those who can demonstrate mastery of some of the objectives. These sorts of packages are most closely related to the face-to-face classroom experience. They would certainly fit any definition of e-Learning and they can be very imaginative, highly visual and graphically pleasing. However, one must question the advisability of taking the pedagogy of the Victorian classroom and applying it unchanged to a computer presentation.

But what about other forms of e-Learning? There are many good examples, some share this same traditional pedagogy whilst others are based upon alternative models. Virtual classroom is certainly a form of e-Learning, here we use an asynchronous audio visual collaborative tool to provide real time discussion and application sharing. The key to the effective use of this particular tool lies in its enablement of collaboration – a key adult learning process. But what about some less obvious uses of technology - do they also merit the label e-Learning? I think specifically of test preparation environments, simulations and video role-plays, video games, Internet books, e-labs, discussion boards and forums and, finally, free text search engines such as Google. All of them connect people with either other people, repositories of knowledge or opportunities to experiment with varying parameters. For me, these are all most definitely learning opportunities and they are e-enabled.

All of the above are increasingly being deployed in our organisations to deliver some of the most critical programmes, but what impact have they had on the corporate training landscape?

The e-Learning enthusiast would doubtless claim that the last 15 years have seen great advances in technology and multi-media design that enables us to produce material that engages students at previously unimaginable levels of fidelity. As a result we now have e-Learning courseware that employs:

- ◆ significant animation - includes sound, video, links to job aids and other documents, message boards, live mentors (24x7) and permits multiple modes of interaction.

- ◆ virtual classroom technology that allows live instructors to lead world-wide sessions across time-zones and share applications
- ◆ courseware that can be used anytime, anywhere. This allowing students to control the pace of their own learning, taking breaks at any time and returning to exactly the point where they temporarily adjourned
- ◆ reinforcement through constant testing. Performance is tracked and recorded providing an audit trail for the benefit of the student and/or corporate training management

By contrast, one could look at the same evidence of e-Learning deployments and suggest that we have taken the pedagogy of the classroom and applied it unchanged to a new delivery mechanism.

If you take this view the last 20 years could be viewed as producing great advances in multi-media design whilst learning design has been largely ignored. The result being that we are left with very pretty courseware that provides little stimulus to learn. Current courseware is often criticised as lacking:

- ◆ Authenticity - little connection to the real world
- ◆ Reinforcement, no mentoring or post course support
- ◆ Usefulness after the first use, no indexing to aid finding things later
- ◆ Any support for information discovery, experimentation and what if type exploration
- ◆ Any linkage to enduring corporate repositories of knowledge

In addition e-Learning is generally considered to be expensive to create and even more expensive to maintain.

Whichever camp one supports, the undeniable fact is that we now have a Corporate Legacy that is characterised by:

- ◆ A large installed base of generic e-Learning materials from a range of providers. Most of which follows a pedagogy of tell and test (Rosenberg 2001)
- ◆ E-learning modules that are not linked to personal development objectives and rarely integrated with the rest of the learning portfolio. In almost all cases there is no explicit linkage to any corporate programmes of instructor led training (ILT) (Rosenberg 2001)
- ◆ Exceptionally poor take up rates of e-learning and poor completion rates
- ◆ Return on Investment (ROI) calculations based on avoided cost by not doing training some other way, rather than effectiveness of change in knowledge, attitude, skills or habits and subsequent linkage to operational effectiveness

Overall the advent of e-Learning can be seen to have produced some changes in the pattern of training deployment and attitudes to the training experience but, just as with other forms of training, there is remarkably little evidence of direct contribution to traditional metrics of business success. It could be argued that the main change we are seeing is an increased expectation that training materials should stimulate multiple senses, be more memorable, more accessible and be available in more condensed chunks that can be called up when needed. In turn, we are seeing classroom style sessions getting shorter, more skills and competency based and more closely linked with job requirements.

The deployment of technology-based training is undoubtedly the most obvious change in corporate education in the last half century. But despite the hype it has done virtually nothing to change the underpinning paradigm of corporate learning. The dominant paradigm remains, that the organisation decides what you learn, how you learn and largely when you learn. It also decides how to recognise what you have learned and prescribes how to deploy your learning on organisational tasks.

There are however some interesting trends in learning that do have the capacity to fundamentally change the paradigm of organisational learning and as they come about will potentially require whole new approaches to assessing delivered value and organisational impact.

2.7. Three Insights that could create a Paradigm Shift

The first and perhaps most influential finding in recent years is the realisation that much of the really useful stuff that people learn, the stuff that makes a difference to performance, is generally not acquired in the classroom, or indeed any formal setting. Most studies show that somewhere between 70% and 80% of our learning comes through informal sources. The US Bureau of Labour Statistics defines informal learning as “the improvised, unplanned instructional efforts that are part of the everyday fabric of business operations”.

Grebow points out that it is this informal learning that has the dominant impact on performance because it brings about a different level of cognitive engagement. The worker is not merely engaged in knowing, but rather fitting the new knowledge into context by adopting and adapting, see Figure 9 (Grebow 2002).

Building Performance Over Time

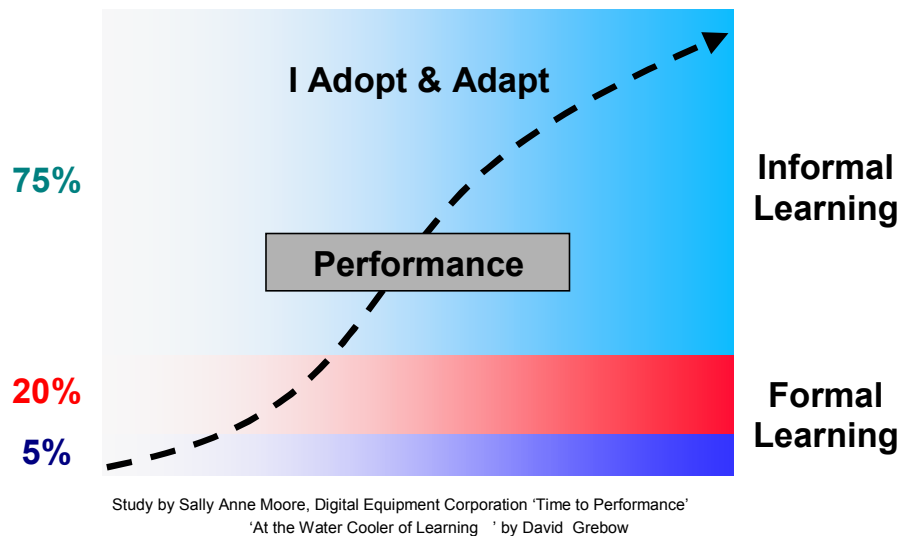


Figure 9 - The Importance of Informal Learning

A simplistic approach would be to class informal learning as “learning by doing” but this is to miss the point of what is going on. Learning by doing is a pedagogical strategy that can, and should, be employed to some degree in any well designed learning programmes. But informal learning is more than this. It is largely organisationally anarchic in so far as it can occur in the most unlikely settings and situations and it is uncontrolled and untracked by the organisation. Informal learning is learner-centred, associated with work but individualised in content and context. It tends to be short term and practical in nature to fulfil specific needs. By contrast formal learning is more general, longer term, standardised, isolated from the context of work, teacher centred, scheduled, measured and to some extent controlled.

The alarming thing is that, if Informal Learning really does account for around three quarters of useful, performance enhancing learning, why do we direct 80% of our spend and efforts at the 25% of learning that provides the least organisational value? And why do our very few efforts to evaluate the effectiveness of our organisational training spend make no mention of the impact of this dimension of learning?

The second major insight concerns the pattern and nature of learning over time. All of our educational and training systems have always front-ended the learning experience as shown in Figure 10. Bob Mosher, Director of Learning and Strategy Evangelism at Microsoft is quick to point out that our traditional approach to preparation for the workplace puts far too much emphasis on initial learning (Mosher 2005).

The learning Migration

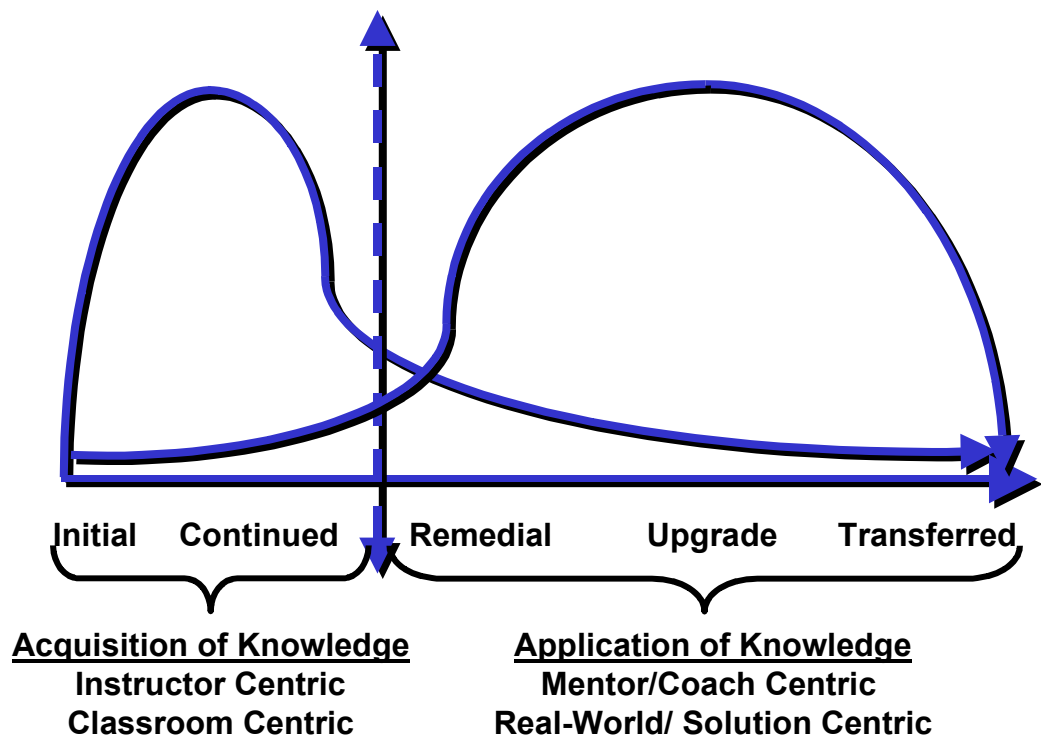


Figure 10 – Moving the phasing of learning in the career path

Mosher points to an increasing recognition that our corporate learning efforts should shift to place emphasis on providing continuing learning opportunities. Furthermore, the nature of the required learning tends to move from straight knowledge acquisition to modes of learning that he terms remedial, upgrade and transferred. By this he is suggesting that the main cognitive load in these modes is in terms of understanding what has changed in the environment and how the new understanding can be applied within the learners' operational context. The means of supporting this sort of learning tend also to be different; there is a greater emphasis upon mentoring and coaching and upon informal interaction and serendipitous learning.

Some learning professional have latched upon this insight to argue the case for Electronic Performance Support Systems (EPSS). These are repositories of context-specific, easily referenced information that can be made available alongside operational systems to provide process and procedural help on a just in time basis. In some cases these systems can contain deeper references in the form of embedded learning objects that can replicate initial or continued learning requirements and fulfil the remedial role. Whilst it appears probable that such systems will indeed proliferate over the coming years, for me, what is significant is the underlying shift in thinking about the provision of learning opportunities rather than the technical implementation of a point solution.

This shifting picture of learning fits well with the structure of informal learning previously discussed. It also mirrors many of the findings that came out of the knowledge management research field and their delineation between Explicit and Tacit knowledge (Polanyi 1974; Nonaka and Takeuchi 1995). Nonaka argued that Tacit knowledge, perhaps best described as “know how”, represents over 70% of all human knowledge. Tacit knowledge is inextricably linked with personal, context specific experience; as such it is hard to formalise and codify whereas Explicit knowledge deals with knowledge that is transmittable in formal, systematic language, (Nonaka 1991; Nonaka and Takeuchi 1995). If we take Tacit knowledge as the product of human beings creating and organising their own experiences, then that knowledge that can be expressed in words and numbers represents only the tip of the iceberg of the total body of human knowledge. As Polanyi stated, “We can know more than we can tell” (Polanyi 1974).

This definition of Tacit knowledge perhaps explains why performance enhancing learning takes place informally through the interaction of humans in context specific engagements, it also goes a long way to confirming the finding that over 70% of learning occurs informally. As a side note, it also indicates why systems such as EPSS may ultimately fail in so far as the knowledge they are able to codify and make available is by and large not the Tacit knowledge that forms the heart of the informal learning interaction.

The third and final fundamental insight comes from work done by Robert Kelly at Carnegie Mellon University in Chicago who carried out a longitudinal study from the mid 1980s to the late 1990s. He was interested in assessing how much of the information that professionals need to do their job was stored in their own mind. His data showed that in 1986 the average professional carried around 75% of working knowledge (context-specific information) in memory, but by 1997 this had fallen to around 15% to 20%. This is a remarkable drop and if we assume that the pattern of decline has continued since 1997 it would be reasonable to assume that professionals are now operating with only around 5% to 10% of their knowledge in memory (Jennings 2004).

This is a remarkable insight, but perhaps not a surprising one. Professionals are neither capable of, or have the need to, memorise all the information they need to perform their tasks. What they do need is to become more adept at knowing where to look for information and to be better at synthesising seemingly disparate chunks of information within context to structure new knowledge and in so doing form novel and appropriate solutions in new problem domains. The task of the leader is to manage ambiguity and mobilise action not store accurate knowledge of their environment (Sutcliffe and Weber 2003). So what price for learning initiatives that place a premium on remembering

things? And how relevant are professional accreditation's that emphasise factual recall over practical application?

These three insights, when taken together have, I believe, the capacity to bring about a paradigm shift in corporate education. A fundamental shift towards learning initiatives that are aimed at the upgrade and transfer learner, emphasise real world application, are learner controlled both in terms of content and process of learning and are positioned to maximise the potential for informal learning. This in turn will bring real challenges to the world of training evaluation for how can you measure the effectiveness of the contribution of informal learning, when by definition we are largely unaware that it is happening? A paradigm shift in the way we provide access to learning must perforce require a paradigm shift in the way we value the outcomes of that process. One might be inclined to opine that in view of the current state of evaluation, this might be no bad thing.

Overall then we might conclude that the changes currently taking place in corporate education are likely to lead to a desire to:

- ◆ bring learning closer to the workplace
- ◆ base the process of learning on discovery and problem-solving
- ◆ root learning in real job related competencies and reduce the time to competence
- ◆ Increase the amount of collaboration in learning and move the process away from an essentially singular activity towards team based competence
- ◆ Provide greater control for the learner over both the content and process of learning
- ◆ Find mechanism to facilitate and encourage the natural informal learning that takes place in organisations
- ◆ Place less emphasis on what people know in favour of a greater emphasis on flexible learning and a demonstrable ability to synthesise new knowledge

2.8. The Unanswered Questions

As we have seen from the review of the literature, most learning professionals are agreed that evaluation is a desirable aim. Furthermore, most business managers are demanding that the value of training initiatives be demonstrated in order to justify investment. But there is little general agreement about the shape of an appropriate process or about who is best placed to conduct evaluation, when it is best conducted or what might constitute an appropriate set of evaluation outcomes.

We have seen that the history of training evaluation is a short one, encapsulated largely in a period of just 50 years. During which time despite an enormous amount of

academic and professional attention, the quality and practice of the art appears to have advanced very little. Indeed, research in the area appears to be characterised by a reluctance to critically appraise and challenge fundamental principles and an inability to let go of an outmoded paradigm. It is true to say that the face of corporate training has undergone significant change both structurally, in the sense of how it is organised, and technologically in the sense of how it is delivered. Over that same period the corporate environment against which learning is delivered has been fundamentally transformed; we have seen a seismic shift in the engine of growth and the driver of wealth in our organisations. We have transited from an industrial age into an age dominated by information, an age where the application of human capital is the major discriminator and is seen as the only true source of competitive advantage. However, what hasn't changed is the imperative to deploy training, and learning, in a manner that fundamentally enhances human performance and, in so doing, produces increased shareholder value.

It is my contention that the changes that have occurred in the corporate landscape serve to raise key questions about the theory and practice of training evaluation, questions that need to be addressed before the discipline can effectively advance. For me the questions centre around four "Ps" and can be characterised thus:

- 1) **Purpose** – why are we evaluating?
 - a) Are we evaluating to prove Compliance? Do we need to show that a given group of people have been exposed to certain information and can now perform in a given manner?
 - b) Are we trying to Check? Do we look for evidence that anticipated outputs and outcomes actually emerge as a result of the learning experience that has been provided?
 - c) Are we trying to Steer? Do we look to make in-flight changes to the learning programme to release benefit earlier or enhance the chances of success?
 - d) Are we trying to Challenge? Do we use evaluation to question our assumptions about causality in the business. i.e. – an increase in customer satisfaction will be accompanied by an increase in repeat orders?
- 2) **Perspective** – who is interested in the outcome of the evaluation and why?
 - a) Is evaluation the province of the Training function and is it:
 - i) Inwardly focused to improve the structure and process of training in terms of content, design and delivery effectiveness?
 - ii) Outwardly focused in terms of justifying its budget, methods or very existence by trying to prove that it adds value?
 - b) Is evaluation demanded by business management because it wants to:
 - i) Steer training initiatives to produce the optimum mix of business outcomes?

- ii) Align learning initiatives with business initiatives and show how they are supportive of each other?
- 3) **Process** – what is the most effective way of setting about evaluation?
 - a) What is the appropriate mix of formative and summative elements in the evaluation mix?
 - b) What emphasis should be placed on confirmative “Validation” evaluation processes?
 - c) Should the evaluation process itself be evaluated – Meta evaluation?
- 4) **Payback** – what did we invest and what did we get back in return, both in terms of intended and unintended outcomes?
 - a) This has to be more than just a simple calculation of financial ROI, as observation along a single dimension can never adequately assess the health of a business or the effectiveness of an initiative within a business environment.
 - b) What is needed is some form of balanced set of measures – but as yet there appears to be no consensus upon the most appropriate set of dimensions.

For me, the four “Ps” set out above represent a set of arguments that can be used to define the boundaries of any study of evaluation. Reference to the literature would appear to indicate that some progress has been made on some of the dimensions and accepted practice has been developed, whereas other dimensions are relatively poorly understood and hence provide fertile grounds for investigation.

2.9. The Scope and Purpose of this Research Initiative

We have seen that evaluation, where it exists, is focused primarily on discerning changes at the individual level. There also appears to be an implicit assumption that the only changes worth noting are those that can be directly attributed to purposeful training interventions. One could argue that this view is flawed. Indeed, one could posit that changes in performance have always been associated with collective rather than individual behaviours. The research presented in Chapter 2.7 above points to the increasing importance of learning rather than training as the driver of organisational performance. It hints that some of the most useful step changes in performance may be derived from the unexpected and emergent outcomes of training rather than directly planned outputs of purposeful interventions.

All the literature agrees that the most challenging programmes to evaluate are those that encompass high degrees of management or soft skills training and take place over a significant period of time (Galvin 1983; Phillips and Stone 2002). It is precisely these programmes that whilst having the most intangible of outcomes often present the greatest opportunities for strategic growth. It is these same programmes that are least susceptible to current modes of evaluation.

I propose therefore to target my research specifically at management level programmes and limit the scope of the research along the following dimensions:

- 1) **Purpose** – when looking at this dimension I feel that insufficient attention has been paid to the evaluative roles of Steer and Challenge. My research will therefore try to examine ways for organisations to exploit these dimensions.
- 2) **Perspective** – virtually all evaluations are conducted by learning professionals for learning professionals. My research will therefore focus on evaluation as a tool of the business and will look specifically at the role of evaluation in steering and aligning learning initiatives.
- 3) **Process** – formative and summative evaluation processes are well understood by educationalists and learning and development professionals alike, my research will therefore concentrate upon Confirmative evaluation in the corporate context and the need for meta evaluation processes.
- 4) **Payback** – is currently firmly stuck with simplistic financial measures, my research will therefore concentrate upon expanding the current understanding of feedback by developing a multi-dimensional basket of measures that can be represented as a dashboard or pattern.

Given the current state of practice in training evaluation and taking account of the scoping statements developed above, the specific aims of this research project were to:

- ◆ Assess the maturity of training evaluation processes as applied to learning programmes in corporate environments
- ◆ Compare current practice (where it exists) of valuing learning interventions with best practice models espoused in the professional literature
- ◆ Develop a method of valuing learning programmes that provides a multi-dimensional view of success and can be used by business managers to steer initiatives to optimise the desired outcomes and to align initiatives with business strategy
- ◆ Evaluate the effectiveness and practicability of deploying such a method in a corporate environment for the assessment of significant learning programmes
- ◆ Develop a series of best practice guidelines for the deployment of the valuation method for any corporate learning programme

This report assesses the current state of practice of evaluation in organisations today and it will propose modifications to current processes to enhance the effectiveness of the conduct of evaluation as an integral element of learning programmes.

3. The Study

As Director of Learning for QA, the UK's largest independent Training Organisation, I enjoy privileged access to senior learning and development professionals in many of the nation's leading industries and I regularly find myself presenting to Board level personnel in organisations with whom we wish to do business. Whenever an organisation is considering adopting QA as a preferred supplier of training, or is about to contract with QA for the provision of significant training programmes, I am asked to present our approach to evaluation. Senior managers are always keen to ensure that we can deliver what they need and that we can show that we have made a difference. Ironically, this is usually the last time the conversation arises. For in the last seven years I cannot remember an occasion when we have actually been contracted to deliver an evaluation regime as part of a training programme. Indeed although we are expected to provide reaction data in the form of 'Happy Sheets', it is exceptionally rare, only about six times in the last three years, to even be asked to administer skills or knowledge based testing. It would appear that our major organisations understand that evaluation is important and that it is a critical differentiator when selecting a training supplier, but once the training starts they have neither the methods nor the will to follow through.

In Chapter 2 we saw that studies around the world show how remarkably few organisations make any concerted or systematic attempts to justify their training expenditure based upon an analysis of the actual impact and effects produced by those programmes. These findings are backed up by my personal experience in working with major organisations in the UK and through conversations with senior figures in professional bodies such as the Institute of IT Training (IITT) and professional networking affiliation's such as the British Learning Organisation (BLA). How then do our organisations continue to justify such significant spending upon training? One thing we can be sure of is that expenditure at these levels cannot simply be written off as a triumph of hope over reason.

All the evidence suggests that most organisations are not rigorously employing any of the evaluation models set out in Chapter 2 of this report. But one must assume that they are getting some form of feedback that gives them confidence that something useful is happening as self evidently they continue to expend large sums of money on learning initiatives.

My research sets out from the premise that rather than trying to impose evaluation models that emerge from "grand theories", theories that experience shows have little appeal in an operational environment, it is more appropriate to examine the actual factors that operational managers accept as surrogates for success. It should then be

possible to proffer a model that includes these “real” indicators of success as central determinants of value.

3.1. Shaping the objectives into a programme of research

In the introduction to this report I set out the general purpose and the specific objectives of this research study. Whilst the objectives point clearly to the expected outcomes of the research my experience of project and programme management has heightened my awareness that outcome is invariably influenced by process. This is an area of research that is dominated by strong opinions and entrenched thinking it was therefore imperative to design a research process that guarded against bias. It appeared to me that an appropriate way forward would be to identify the major stages of the research programme and then to specify and adopt data gathering methodologies suitable for each stage. My first design identified the following major steps:

- ◆ Conduct a review of practice in a range of organisations engaged in significant learning programmes to determine their evaluation approach, if any, and the indicators by which they ascribe meaning when valuing the impact of their learning interventions
- ◆ Analyse the theory base of training evaluation and compare theory to the actual application of methods observed in the review of practice
- ◆ Synthesise theories and models taken from the field of learning and development, organisational performance measurement and Human Performance Technology (HPT) and superimpose these understandings upon current models of training evaluation to produce a new understanding and approach to the valuation of learning programmes
- ◆ Widely share evidence gained from the organisations in the study within the learning and development profession and the wider academic community to confirm or modify the shape of the emerging valuation method
- ◆ Develop a series of guidelines for use within the learning consulting division of my organisation in order to guide the deployment of this approach to valuing learning programmes within our client organisations

We saw in Chapter 2 that despite an abundance of possible theoretical approaches to evaluation many learning programmes are initiated without a clear articulation of success criteria. Therefore success or failure appears to be adjudged by feel rather than through any analytical process. Rather than dismissing this “gut feel” approach as being unscientific and inappropriate I decided to investigate further. My belief was that if we could articulate the actual indicators that help operational management to form their impression of success then we would have made real progress towards the development of a realistic model of evaluation. The intention was to work directly with a

range of stakeholders in the learning process and record their impressions of success and failure and then to analyse this raw data in an effort to derive a new theory directly from their narrative. Hence the theory would emerge from, and be driven by the data. Such an approach is wholly consistent with the Grounded Theory paradigm of research (Strauss and Corbin 1998; Cohen, Manion et al. 2000).

3.2. Balancing the worker / researcher role

As a practising consultant, manager and director of my company I am naturally concerned with ensuring that the methods we employ are consistent, repeatable, pragmatic and cost effective for our clients. I therefore need to develop and deploy methods and techniques that can fit a variety of organisational situations and can be readily tailored to provide the depth of analysis that the client demands whilst remaining defensible and robust. I lead a team of consultants who have over the years amassed a range of stock solutions that they know will produce results. They, and I, hold pre-conceived ideas and notions of what constitutes an appropriate mode of enquiry in a corporate environment and an unfortunate predilection to pre-judge issues and make the data fit the solution we have to hand and wish to sell. The programmes we run with our clients provide the would be researcher with both a rich vein of data and a potential graveyard for approaches that appear to be overly academic in nature or time consuming in deployment.

The subject of this research is of great interest to my clients, many of whom have pushed me for early results and rapid deployment. I have resisted this pressure because I am conscious of the danger of latching on to attractive early indications that feed pre-conceived notions. I have never lost sight of the fact that as a researcher I am concerned with the identification of fundamental truths. Whether or not these prove palatable to my clients or if they fit with the favoured deployment methods.

My challenge then was to conduct the research whilst at the same time leading and guiding the implementation of programmes and methods that might appear to be at odds with the emerging findings of the research. This necessity to interleave the data collection with an alternate and ongoing stream of work meant that the chosen method of primary data collection, the unstructured interview, had to be conducted over a period of months. I also chose to conduct the vast bulk of the data gathering without attempting even rudimentary analysis. By this means I could be sure that I would avoid possible bias in data collection.

3.3. Research Methodology, methods of data collection and analysis

The nature of the phenomena to be researched namely, the articulation of a linkage between learning programmes and traditional measures of organisational performance, is inextricably linked to the social dynamics of the organisational setting in which the initiative is played out. The literature suggests that in such cases the qualitative research paradigm is the most appropriate form of investigation. The paucity of an established theoretical base, and the inability to examine the phenomena outside its organisational setting also indicate the favourableness of a qualitative research approach (Benbasat, Goldsmith et al. 1987). It is asserted that human behaviour cannot be understood outside the context of the action and without reference to the meanings and purpose attached by the actors (Guba and Lincoln 1994). Qualitative research by definition places the emphasis on process and seeks to answer questions related to how social experience is created and given meaning (Denizen and Lincoln 1994).

The evaluation of the impact of training and learning initiatives appears to be an area where accepted academic approaches are rarely, if ever, fully implemented in practice and yet organisations do appear to engage in value judgements about their programmes. It would appear then that “theory in use” is often unrelated to espoused theory. My research was aimed at uncovering the unarticulated and implicit indicators that give organisational stakeholders a level of comfort that something worthwhile has taken place. To do this I determined that I would need to engage with a variety of stakeholders and elicit “rich descriptions” of their interactions with, and feelings about, the learning programmes with which they were engaged. I did not feel that I could obtain the richness of description necessary by using tools such as survey or questionnaires. So the only practicable way forward appeared to be to employ a direct face-to-face unstructured interview approach.

This phase of rich description was fundamental to the design of the research model. Strauss points out that description is the basis of more abstract interpretations of data and theory development (Strauss and Corbin 1998). Clearly, description is not value free. As individuals describe events or feelings they may be unconsciously selective and their recollections are invariably coloured by what they thought to be important. However, it is only by examining these descriptions drawn from organisational settings that one can begin to understand the range of feelings, impressions, actions and observations that actually contribute to the process by which organisations ascribe value.

The data from the rich descriptions was used as the vehicle to develop “grounded theory”, the idea being that theory, “evolves during the period of research by continuous interplay between analysis and data collection” (Strauss and Corbin 1994). It is

considered acceptable, indeed inevitable, that researchers will carry into current studies theory based upon previous research that appear relevant to the phenomena at hand. I should declare that whilst I largely rejected the currently accepted models of evaluation I entered the research with an expectation that some form of balanced scorecard may well emerge. At the very least I expected that techniques of data visualisation drawn from the field of organisational performance measurement may prove to be relevant as the study developed and indicators were identified.

The Grounded theory approach would normally progress through successive iterations of comparative analysis in order to develop and refine a generalised theoretical model that may have wider applicability to a range of corporate settings rather than claim that the specific explanation is representative of a greater sample population. My expectation was that this stage of the research might produce an outline model that could be subsequently refined and developed through detailed case studies in client organisations. Such refinement would inevitably involve multiple longitudinal studies and would likely be part of my continuing professional development outwith the constraints of this phase of the doctoral research.

With any research design it is necessary to consider the unit of analysis. In this instance the locus of interest lies in examining how individuals collaborate in the production and sharing of organisational knowledge, skill and attitudes which when taken together creates the environment within which performance improvement can take place. Although we are seeking to link learning programmes with macro level changes in performance such indicators may be considered to be the aggregation of many smaller productivity improvements that result from the activities which take place within small to medium sized work group. I therefore determined that in order to avoid bias and to obtain as wide and rich a descriptive base of data as possible it would be necessary to look at work group performance from a variety of perspectives. It was for this reason that I spread the interviews across a sample of stakeholders that included programme sponsors, course designers, course delegates and receiving managers in the workplace.

For all the reasons stated above a qualitative research paradigm was chosen and was made up of a mix of deskwork and fieldwork. The specific method used entailed the development of Grounded Theory based upon the micro-analysis of rich descriptive data gathered from a range of unstructured interviews conducted across a range of programmes in various industries at multiple, but homogeneous sites. The deskwork was structured around the development of grounded theory based upon my conceptualisation and interpretation of data collected initially from interviews designed to determine the nature of current practice and the strategic aspirations of applied evaluation methods.

In a Grounded theory approach such as this the first stage of analysis involves conceptual ordering; this is where data is organised and coded to reveal and highlight phenomena in terms of their properties and dimensions. This is a precursor of theorising and one would expect that the emerging theoretical frameworks would then be iteratively refined through both an internal dialectic process and comparison with data collected from focus groups and discussions with other senior training professionals. Triangulation was achieved through the use of multiple sources of data and a variety of techniques of data collection. In this manner I hoped to develop theory that closely reflected everyday corporate reality. Such theory should be highly applicable to a variety of corporate contexts; having been induced from diverse data drawn from the substantive area.

3.4. Selecting the nature of programmes for inclusion in the Study

The literature review in Chapter 2 showed that virtually all attempts to evaluate the impact of training are initiated and managed by the training department. Furthermore, many of the reported successes in the literature are found in cases where the training could be linked directly to a performance deficiency that had a high procedural or skill element. In such cases determining the baseline performance level is relatively simple and the desired performance outcome might be expected to emerge soon after the completion of training, thus effectively isolating the effects of the training, programmes of this type appear to be relatively well understood.

I am therefore concerned primarily with the evaluation of those programmes that address less tangible aims where the linkage between cause and effect may be hidden from us. I am also concerned with moving the emphasis for evaluation away from the provider and towards the customer as I believe that it is only when an initiative is viewed through the eyes of the customer that we can truly assess the efficacy of the outcomes.

The focus then was on large-scale learning programmes that shared some, or all, of the following characteristics:

- ◆ They enjoyed high level sponsorship and arose from a general disquiet about performance in an area that was considered to be of strategic significance
- ◆ They were aimed at diverse communities of more than 50 people
- ◆ They centred on areas of practice that had a significant soft skills bias and the connectivity between training intervention and enhanced performance was likely to be tenuous and separated in time and space

The programmes were drawn from a wide variety of industry sectors, including:

- ◆ Financial services
- ◆ Telecommunications
- ◆ IT Services
- ◆ The food and drinks industry

The programmes covered a wide range of competencies including sales effectiveness, organisational leadership, project and programme management and business systems analysis. In all programmes interviews were conducted with the sponsors or champions of the initiatives, course designers, course attendees and receiving managers. As many of these programmes had an international dimension it was possible to include the views of personnel drawn from the UK, Europe and the USA.

3.5. Selecting the Contributing Organisations

All the organisations in the study had a history of working with my company although a number of the programmes in the survey were neither designed nor delivered by my organisation. I approached these companies because in previous informal discussions they had all professed a desire to link investment in learning to measurable changes in business performance. One manager encapsulated this by stating that what she was looking for were; “Changes to the bottom line or changes to the culture that would connect to changes to the bottom line.” However, I was to subsequently find that there was not a single instance where such linkages and measures were defined at programme commencement. Indeed there appeared to be a disjoint between the operational managers who identified the need for, and presumably specified the scope of the learning needs and the training department who either procured or delivered the interventions. Operational managers were interested in changes in practice and associated performance but the interest of the training department appeared to end at the classroom door. One senior operational manager summed up the frustration felt by most when she confessed; “I have not seen much evidence of evaluating outcomes after the event”.

The initial round of data collection employed one-to-one interviewing to elicit rich descriptions of events and was conducted in organisations who had a stated interest in evaluating outcomes. These organisations routinely collected reaction data (Kirkpatrick level 1) and about a third of them checked formally on knowledge transfer by conducting assessments of learning on training completion (Kirkpatrick level 2). However, despite stated intentions I was to later find only one example of an attempt to reach out into the workplace after training to assess behavioural change, the programme designer commented thus:

“So right now we are trying to go through a Kirkpatrick level 3 approach and identify what are the skills applied and try to get anecdotal information about certain contracts that have been won where we think we could attribute any degree of the success to the training programme”.

Even in this case the desire only surfaced from the training community some nine months into the life of the programme, once the programme had been deemed to have settled down.

3.6. Data Gathering and Triangulation

The initial data gathering consisted of 15 one-to-one interviews conducted either face-to-face or over the telephone. These interviews were unstructured using a mix of open and probing questions to determine interviewees impressions of the programmes and their personal assessment of how the programmes had contributed to observable changes within their organisations.

My first design for this phase of data gathering was based around a complex mind map of the proposed domain of the study. Against each element of the mind map I populated a series of bullet points to indicate the dimensions of the data I expected to gather thus I had the basis of a structured interview without actually formulating specific questions see Appendix A. I piloted this approach with two trusted colleagues and discussed both the methodology and the results with my research supervisor. It became clear that this technique was inhibiting the spontaneity of the fact finding process and potentially limiting the scope of discussion and discovery. By mapping out the questions I was artificially constraining the discussion and ultimately risked only collecting the data I expected rather than discovering the data that actually existed within the domain of study. I dispensed with the mind map and started the interview process again this time adopting a completely open approach.

The interviews generally commenced with an open question of the form, “tell me about the purpose of the programme you attended / designed / sponsored?” Subsequent questions were triggered by the nature of the responses and my thoughtful reaction to the unfolding dialogue. My purpose was to encourage the respondent to elaborate upon previous observations or reflect upon the potential impact of their insight in the broader perspective. Interviews generally lasted 30 to 60 minutes and it was stressed that all views expressed would be treated as totally confidential. It was further agreed that any direct quotations that might be used for illustrative purposes would be non-attributable to individual or organisation. In order to maintain this confidentiality I have not named contributing organisations in this report.

The interviews were tape recorded and subsequently transcribed verbatim in the form of an interview transcript. The completed transcripts being mailed to the interviewees so that they could confirm that the document was a fair and accurate account of their opinions. From this point onwards the data was stripped of its context and provenance so that interpretations could be drawn whilst maintaining anonymity and confidentiality. A sample interview transcript is attached at Appendix B to illustrate the depth and richness of description.

The full texts of the interviews were transferred into a spreadsheet where responses were broken down into individual sentences. A coding system was employed to ensure that an audit trail existed whereby individual statements could be traced back to original interviews if that should prove necessary. Hand written notes taken during the interviews were used to help with the deconstruction of the responses and to ensure that the intentionality of the statements was not lost. An extract from a coded interview prior to analysis is shown in Figure 11 to illustrate the method employed and a more complete representation can be found at Appendix C.

Q #	question code	R #	Interview question	Question Response
Int3-q1			Can you just start by giving me your impression of the purpose of the programme?	
	1	Int3-q1-r1		To equip XXXXXXXX managers with a common approach to medium to large scale projects.
	1	Int3-q1-r2		My view is that it is maybe a little over the top for small-scale projects but for medium to large projects it is ideal.
	1	Int3-q1-r3		I actually used the course for this move. I was project director for the move, responsible for everything from the design to the physical move of the people and equipment.
	1	Int3-q1-r4		The course came at the beginning of the project so I was able to use that experience to make sure that I was carrying everyone on the project with me, so it was good timing.

Figure 11 – A fragment of a coded interview transcript

The initial coding employed referenced the interview number and the question number within the interview. The response to each question was then broken down into individual sentences to allow for a line by line microanalysis as recommended by Strauss and Corbin as the appropriate first step at the beginning of a Grounded Theory study to establish initial categories (Strauss and Corbin 1998). Hence a code of – Int3-q1-r3 may be taken to refer to the third sentence of the response to question 1 in the third interview. See Figure 11 above.

The data gathered in the one-to-one interviews was triangulated by means of a series of focus groups, discussions and fact finding talks held in a wide range of organisations. These discussions were held with learning and development professionals, senior operational managers, colleagues in other training organisations and consulting houses and senior figures in professional associations. Many of the discussions were of an informal nature and hence the conversations were not recorded verbatim but rather

impressions and examples were later recorded in my diary of events and related findings. Also during this period I attended several professional gatherings that featured sessions on the general subject of training evaluation and the opinions expressed by the presenters and comments from the audience were collated and added to the generalised understanding of practice that was beginning to emerge. In all cases there appeared to be a remarkable consistency of experience.

3.7. Analysing the Data

As referenced above the bulk of the data analysis was performed using a microanalysis, line by line technique combined with an open coding system. The advantages of this type of approach have been proven by Struass (Strauss and Corbin 1998) and are said to include:

- ◆ the ability to analyse the data provided by participants recounted their experience of actual events and actions
- ◆ to provide scope for the observers interpretations of those actions and happenings
- ◆ to allow the researcher to react with the data and in doing so enhance the creative aspects of the analysis

As discussed the interviews were totally unstructured, this meant that the nature, phrasing and order of the questions varied greatly from interview to interview. Also as questions were often used as prompts to stimulate further thought it was not always immediately obvious what the intent of a question might have been when stripped of its context. It was felt that in order for the microanalysis to proceed it was first essential to classify the general context for each question. Inspection of the nature of the questions suggested that they fell into the following broad categories of enquiry:

- ◆ establishing the training need
- ◆ selecting candidates
- ◆ setting success criteria
- ◆ observable changes in knowledge
- ◆ observable changes in practice
- ◆ observable changes in behaviour
- ◆ estimating the value of the initiative
- ◆ changes in the supporting environment

Q #	question code	R #	Interview question	Question Response
Int6-q1			Could you tell me a little bit about the business analyst's competency programme?	
	8	Int6-q1-r1		Basically what was recognised at was that there was a mismatch between the capability of the current business analysts and the future plans of the change programme.
	8	Int6-q1-r2		So in effect we are going to be initiating all these high profile change programmes and whilst we had the numbers of analysts we didn't really have the requisite skills to deliver that change.
	8	Int6-q1-r3		So having realized that, it was then decided to try to do something about that and the training programme run by QA was part of the solution to that.
Int6-q2			Ok, can I just pick up on a couple of things? Firstly how did they recognise that they were lacking the skills? What were the signs that showed them that these were missing?	
	1	Int6-q2-r1		I think it was feedback from the various stakeholders on the various projects, project stakeholders, project managers etc were feeding back that the guys who were trying to do the job were not performing well.

Figure 12 - A fragment of a coded transcript with added question theme code

On first analysis some of the questions did not appear to fit readily into any of the above eight categories, it was therefore decided to create a ninth holding category of "General" and endeavour to subdivide these further at a later stage in the analysis.

Figure 12 shows the addition of the question code, in this case 1 referred to the category, establishing training needs, whilst 8 was the general unspecific category. This approach made it simple to sort the interview transcripts by question type and then gather all responses to the same question type in a single repository.

The next steps in this form of analysis are designed to identify phenomena, central ideas in the data that indicate concepts. Concepts are 'labelled phenomena' and it is the identified "Concepts" that will form the building blocks of an emerging theory (Strauss and Corbin 1998). The next step is to examine the responses to the questions in order to attempt to abstract concepts from the text. In some cases the concept, or name, assigned to the phenomena could be directly taken from the words of the respondent, for example the following response led to the classification of personal recommendation. A conversation fragment and associated concept is shown in Figure 13 below.

We have also had graduates of the programme recommendation other team members to attend the next programme because they felt it important that the other team members benefit from the same experience.	personal recommendation
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Figure 13 – A concept suggested by a respondents actual words

But in many cases the concept was suggested by the imagery or meaning evoked in the analyst when the data was examined in context. An example of such a classification follows in Figure 14.

So I don't think we have the rigour in place to determine how we are going to measure things and to ensure that we do measure things correctly.	no benefits logic	no post implementation review
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Figure 14 – A concept evoked by context and experience

Here the context of the interview and professional experience of the analyst in delivering large scale training programmes suggested that the respondent, in talking about rigour, was alluding to the lack of understanding of cause and effect, that is 'no benefits logic'. Also in talking about not knowing how they were to measure success they were in essence bemoaning the lack of a 'post implementation review' process. This is a typical example of a response fragment that can give rise to multiple interpretations and hence multiple concepts. In order to increase the potential richness of the subsequent analysis it was decided to permit up to three concepts to be associated with each response fragment. An example of abstracting multiple concepts from a response is shown in Figure 15 below:

We did a business training simulation which took you through three years of running a company and that was excellent.	task relevant to job	ability to practice critical tasks	real life feel
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Figure 15 – A conversation fragment leading to multiple concepts

The rationale adopted was to list the dominant concept in the first column and secondary concepts in the next two columns. This level of analysis provided a range of reports that could be sorted and displayed in a variety of ways. A more complete sample of a coded interview transcript is attached at Appendix D.

The next step in the analysis was to collect the data under the 9 question headings previously identified and then scan the concepts assigned to the responses to identify clusters of common phenomena. For example, under the question heading "setting success criteria" the following four broad themes of concepts were identified:

- A. lack of clear business targets
- B. people recommending programmes to others
- C. people feeding back success stories
- D. people working more independently

Figure 16 shows an extract from the detailed analysis, although the concepts are worded somewhat differently simple inspection indicates that they all relate to a common theme that can be classed as ‘feeding back success stories’.

C	post hoc look at behaviours	anecdotal evidence	success stories
C	success stories	exemplar case studies	in class learning from experience
C	using experience to guide action	learning led to further success	

Figure 16 – Grouping concepts into common themes

All the interview transcripts were examined in this way with phenomena, concepts and common themes identified for each of the eight question groupings. By this stage the original rich description had been rendered into a series of thematic groupings of concepts related, but not exclusive to, the broad categories of phenomena. Although the results provided some individually illuminating insights what had resulted was in effect just highly codified data. The next and most difficult task of theorising still lay ahead.

The process of theorising can be conducted in many ways but is essentially both inductive and deductive in nature. Induction refers to deriving concepts, properties and dimensions from the raw data whereas deduction is generally a process of hypothesising about the possible relationships between elements of the processed data, that is data that has already been inducted from the raw data (Strauss and Corbin 1998). Inevitably the deductive process will involve a level of interpretation in the production of an explanatory framework but it is only through this process and the ongoing dialectic that seemingly disparate phenomena and concepts can be formulated into an explanatory schema.

When I conducted the interviews I tape-recorded the events in order to produce a verbatim transcript but I also took personal notes of the impressions that I formed during the course of the interviews. I was struck by the fact that most of the respondents viewed their learning experience as integral to the fabric of their work and organisational life. In describing their experiences they were trying to make sense of their impressions within the context of a dynamic web of competing challenges and community loyalty. They certainly viewed their learning experiences as part of a continuum but not as a simple linear progression, rather as a complex, almost chaotic web of connections that

formed the fabric of their experience. This seemed to be at odds with most of the existing models of training evaluation that segregate the learning process into a series of discrete, linear and sequential steps. For instance, Kirkpatrick would have us believe that the acquisition of new knowledge is a precursor to, and a necessary condition for, a change in behaviour. When discussing learning the interviewees adopted a far more holistic and systemic view. They talked in general terms of collective phenomena resulting from a massively parallel and iterative process of engagement with the environment and their colleagues within the context of real and pressing problems. It therefore struck me that any potential explanation of the processed data should proceed from a systems view of the world. The simple system model is shown in Figure 17 below.

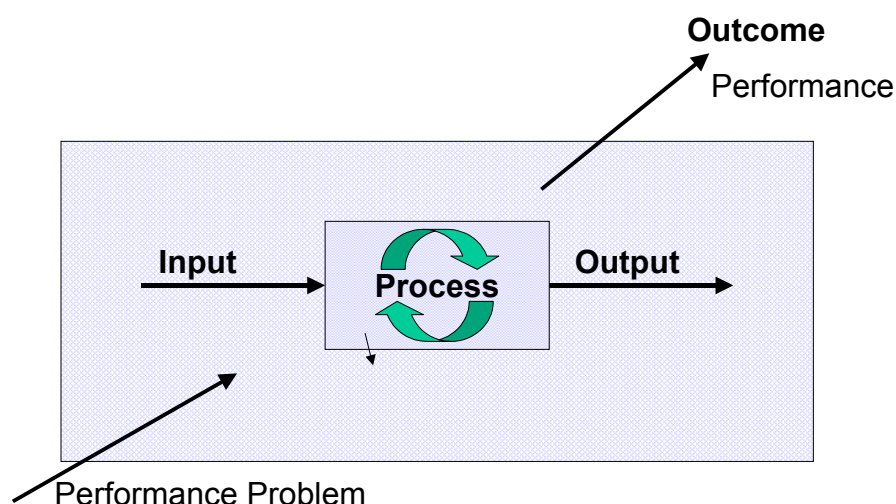


Figure 17 - The basic systems model

This model was invaluable in helping me make sense of the plethora of data and impressions. It gave me a simple but not prescriptive framework against which I could plot the emerging relationships. It showed me that whilst the coding of the data into broad categories based upon the nature of the questions had been a useful device to simplify the data it had also trapped me into viewing the world in much the same light as the models I had set out to challenge. The systems view enabled me to see fundamental truths that transcended the individual components under discussion. I was able to discern a pattern of enduring traits that appeared to be valued in the wider organisation regardless of the nature of the learning intervention. These traits were of a more holistic nature. Just as an archaeologist seeks to understand the ways that ancient communities functioned by studying the artefacts left behind by those communities I had a sense that I was beginning to glimpse the artefacts of community as they were being constructed. In an organisational setting it appeared to make little sense to try to understand learning in terms of individual behaviours. The route to

understanding lay in observing the impact of learning in the fabric of the community in its values and normative behaviour.

In the next chapter I will look in detail at how these emerging themes and concepts would start to form the building blocks of an emergent theory. A theory rooted in the systems view, a theory that had been arrived at through a process of increasing abstraction and conceptualisation. But one which I hoped would have broad relevance both as a framework for understanding and as a model for challenging and predicting potential outcomes.

4. Key Propositions Emerging from the Research

As described in chapter three, the detailed line by line analysis of the interview transcripts highlighted phenomena which when viewed in the context of the interviews and coloured by the findings of the focus groups started to emerge as themes. These themes, whilst broadly paralleling the accepted literature in terms of generalist approach, pointed to specific gaps between espoused theory and practical considerations that appeared to be important to operational managers concerned with demonstrating value. As a result new understandings emerged that could be seen to fit with the patterns of actual practice and these in turn gave rise to modified concepts and new relationships with the prospect of new emergent theory.

4.1. Analysis of Interviews and Preliminary Propositions

Inspection of the nature of the questions during the first pass of the micro-analysis of the interview transcripts led to a preliminary conceptualisation of how operational managers view the value creation process with regard to training programmes. Training professionals appear to be wrapped up in the detail of what is to be taught, how it is presented and how it is received. Whereas operational managers are more concerned with why are we doing this, who is involved and how will we know we have made a difference. They go on to be concerned about what difference will be observable in what people know, how they act and what they can be expected to do and how the managers themselves will need to operate in order for these differences to be exhibited. Finally, they were anxious to be able to demonstrate that something positive had happened as a result of the investment of time and resources.

In terms of emerging concepts and themes the data could be divided into eight broad categories, that could be viewed as answers to five questions, namely:

- ◆ How was the training specified and initiated, in terms of:
 - ◆ establishing the training need
 - ◆ setting success criteria
 - ◆ selecting candidates
- ◆ How would the training bring about:
 - ◆ observable changes in knowledge and skills
 - ◆ observable changes in behaviour
- ◆ How would these changes need to be supported by:
 - ◆ changes in the receiving environment
- ◆ How would changes in knowledge, skills and behaviour combine with changes in the receiving environment to bring about:
 - ◆ observable changes in practice
- ◆ And if those changes were successful in bringing about improved performance, how would the managers be able to:

- ♦ estimating the value of the initiative

All respondents talked about how their training programmes came about and some common phenomena were seen to emerge.

4.2. Establishing the Training Need

The training programmes in the study all appeared to come into existence either as a result of an obvious and painful basic skills shortage or in response to a generalised disquiet about the organisations ability to perform effectively in a given arena. That disquiet would grow and eventually build a consensus of influential people all of whom held a view that:

- ♦ There was a desperate need to change and do things differently within the organisation
- ♦ Or simply, perhaps in desperation - something had to be done

It was not clear how these basic feelings of disquiet were captured and prioritised for solution within the organisations. What was clear was that when talking about programme initiation the interviewees tended to concentrate upon phenomena such as linkage to business strategy and preparation for the job, both in terms of skills and techniques but also in terms of methods and processes. They also commented upon the need for stated competencies or objectives and the need for those objectives to be validated in the light of expert opinion and for that opinion to be subject to peer review.

Over 60% of the programmes came into existence as a result of some form of diagnostic process. Many others were spawned out of process improvement programmes or pan-organisational change initiatives. A few appeared to have their roots in what might be termed the quest for professionalism, that is the desire to adopt best practice or to leverage localised insights or learning. And a small number of programmes came about as the result of a 'Big Idea', these were characterised by dependence upon a key individual who by virtue of position or reputation could initiate and drive a personal innovation into training practice.

Amongst those programmes that commenced with a diagnostic there was no direct reference to a formal instructional systems design model (ISDM). However, the evidence gathered from the interviews appears to show that the diagnostic appeared to be positioned around job needs, with training clearly linked to current methods and practices and rounded out in terms of a statement of necessary knowledge, skills and techniques. The analysis was invariably peer reviewed and compared against the experience of experts in the field. Specifications tended to be couched in terms of general competencies or less frequently in terms of behavioural objectives. In most cases there was some attempt to link the learning programme to stated business

strategy, but this appeared to be largely post-hoc rationalisation rather than a top-down strategy driven elaboration of needs. We see then the artefacts of an instructional design process without the apparent rigour and disciplines that learning and development professionals would espouse as necessary and sufficient conditions of well designed programmes.

The second most common theme for establishing a learning programme appears to be that the initiative is designed to be supportive of some ongoing organisational change. This is perhaps not surprising given the plethora of change initiatives that appear to be the staple of most organisations. Change inevitably needs people to act, react, interact and feel differently. Change often introduces new systems and organisational processes, new management structures, new ways of working; all of this places a heavy burden upon the workforce. The evidence suggests that as many as 70% of these change initiatives fail to produce the desired business outcomes it is little wonder then that training is often seen as the mechanism to overcome poor implementation. Change as the primary driver of training was much in evidence in this research sample with stated purposes ranging from a need to:

- ◆ Bring about incremental performance improvement
- ◆ Improve perceived poor service, as measured in terms of:
 - ◆ Missed deadline or none delivery
 - ◆ Poor quality of delivered products or services
 - ◆ Lack of trust from, or credibility with, the client base (internal or external)

The sample also showed programmes posited around more general change initiatives such as a desire for greater cross function co-operation and working, adapting to a changing operational environment and in some cases increasing complexity within the market or sector.

In addition to the above reasons the desire to share experience and best practice is a common theme and regardless of the primary focus of initiation was apparent in 45% of cases. The major drivers appear to be:

- ◆ Establish common practices and vocabulary
- ◆ Learn from experience
- ◆ Make individual tacit knowledge explicit and widely available
- ◆ To contextualise knowledge and by doing so make it more widely accessible

Finally a very few programmes appear to come about solely through acts of personal championship. Someone with credibility, either by virtue of position or personal reputation, determines that something needs to be done in a specific area and makes it a personal crusade to bring about the change. The problem with initiatives such as this is that they become so inextricably linked with the character and persona of the

champion that should that champion move on or become distracted by other events the programme can quickly fall by the wayside.

The findings from this study support the accepted practice that programmes should commence with some form of diagnostic to determine needs. Whilst this process is not always formal and recognisable in terms of established ISDM methods we can see that there is broad compliance with the aims that underpin such models. As far as operational managers are concerned the aims of the needs analysis process is not to provide a beautifully documented cascade of behavioural objectives but rather to show in more general terms the purpose of an initiative. How it contributes to performance and how it can support existing structures and practices. In this respect the operational outcomes of the needs analysis process as conducted appear to be to:

- ◆ Link training to business strategy and reflect leadership priorities
- ◆ To identify and grow essential skills within the business
- ◆ Target specific competency areas
- ◆ To maintain central direction and influence career development

4.2.1. Setting Success Criteria

Given the relatively structured process that accompanies the birth of most training programmes one might be forgiven for assuming that a similarly rigorous approach would be taken to the act of determining how we might adjudge their success or failure. Both in my sample interviews and in the accompanying focus groups this was a consistently weak area. Indeed I found no examples where formal targets were set during the design phase of the initiatives, nor did I find any evidence of measuring a baseline state prior to commencement of training. Even though 60% of the programmes had undergone some form of diagnostic approach in order to identify the training needs, it would appear that the practical application of the instructional systems design model was particularly weak with regard to the specification of evaluation criteria. This lack of clarity with regard to measurement is of particular concern because all the business sponsors of the training initiatives in question had expressed specific interest in determining the value of their programmes. In this respect we have a breakdown of process and communication between the sponsors of training and the designers of the training programmes. A breakdown that may be due to conflicting priorities but I think is rooted in the functional discontinuity that occurs between provider and consumer of the training product.

Detailed examination of the interview transcripts points to a complete lack of evaluation activity during the design, development and implementation phases of training. Whilst after the event we find a rash of attempts to discern possible indicators of value. These

disjointed attempts at post-hoc rationalisation appear to be typical of the current state of training evaluation.

In all the programmes in the study evaluation, when it took place, was very much an after-thought, this was indicated by interview comments that pointed to there being:

- ◆ No agreed measures of success
- ◆ No statement of expected benefits
- ◆ No view of a cause and effect chain through which benefits could be delivered
- ◆ No tracking of changes in workplace performance
- ◆ No post implementation review to determine the effects of the programme

Perhaps we should not be too surprised that the above situation is the case, after all our organisations take a similarly cavalier approach to tracking the impact of most investments. The above list also has an air of tangibility about it. When discussing benefits or measures of success one might expect operational managers to point to hard measures such as increased revenue, avoided costs, improved productivity (widgets per hour) but of course one could describe success in less tangible but equally important terms. Indeed this was the case with the managers in my survey. When asked what measures of success they would like to see tracked 20% responded in terms of valuing increased networking, collaboration and community; indeed anything that promoted people making better connections with each other and building working relationships. [Note: we could characterise this general strand of behaviour as Sharing.]

There also appeared to be a strong appreciation of the deeper, long term and enduring changes that training programmes could bring about. It was noticeable that the programmes that enjoyed the best reputations and were considered to have brought the greatest value were those where:

- ◆ People recommend programmes to others
- ◆ Past students fed back stories of success that could be used as case studies

[Note: this behaviour could be said to be characteristic of Championing.]

A key outcome that was valued regardless of the specific aims of a programme was that, if as a result of the training, students could be seen to work more independently and require less supervision. [Note: this strand of behaviour could be characterised as Transforming.]

Overall then the evidence would suggest that it is rare indeed for any form of success criteria or benefits to be set out at the commencement of programmes. On those

occasions when an organisation does look for evidence of success it tends to be after the event and perhaps surprisingly is centred upon any phenomena that tend to build management confidence that something worthwhile has happened. In this respect, and contrary to received wisdom, the phenomena that tend to build that confidence are intangible and largely collective behaviours rather than financial measures or apparent individual success.

4.2.2. Selecting Candidates

This area generated little interest amongst the interviewees, possible as it is in no small part linked with the general purpose that inspired the training programme. Where the programme resulted from a diagnostic, the target audience was invariably specified or consulted as part of that diagnostic. For those programmes that were part of a broader organisational change initiative, again the candidates were readily identified and targeted as part of the change.

It was in the areas of spreading best practice, grand ideas or generalised open access to learning where candidate selection became an issue of concern. In these cases the management decision to recommend training often arose through annual reviews or personal appraisal, often as part of a personal development planning (PDP) process. In over 50% of these cases the recommendation was based upon an identified job need, a desire to enhance current skills or to develop the pre-requisite knowledge / skill necessary to prepare for new roles or responsibilities.

One of the organisations in the survey had moved to a self selection process for generalised training requirements. Employees could inspect a catalogue of available training and, subject to managers approval, register for any events they deemed to be valuable and pertinent to their development. In this case it was interesting to see that where self-selection onto programmes is permitted the students tend to place a high degree of relevance upon:

- ◆ Personal recommendation from trusted sources
- ◆ Internal or external marketing including word of mouth
- ◆ Attraction of being part of an elite group – vanity value

At first sight this may appear to be a somewhat subjective list. We have no way of knowing if it is so because of the absence of more concrete data, I instinctively feel that regardless of the availability of supposedly rational objective data people would prefer to make their choice upon the basis of personal confidence. Experience suggests that such confidence is more readily inspired by the good opinion of trusted peers than by perusing course quality statistics. Furthermore, it would seem reasonable to suggest that if, when given a free selection, people make personal choices based upon feel, then

might they not also as managers choose for others on the same basis. In choosing their own training in this manner they are making personal assessments of the value, and likely success, of programmes, it is not surprising then that this list resonates strongly with the intangible success criteria identified earlier by managers when assessing the effectiveness of programmes.

4.2.3. Changes in Knowledge

One might expect that in a study devoted to determining how people value learning opportunities there would be much discussion about the subject of knowledge. Perhaps a debate upon what was appropriate knowledge in any given field of endeavour, how that knowledge should be structured and accessed, how developments in the body of knowledge were leading to new insights and developments. Strangely none of this was the case. Knowledge may be the domain of the learning professional, it may have given rise to endless debate about how best to map it to jobs and roles or whether to depict knowledge in terms of competencies or cascades of objectives. But at the sharp end of business the emphasis is very much more prosaic, operational managers are interested in how knowledge can be leveraged to produce results. There is an inherent understanding that value is created when knowledge is applied and that the appropriate conditions for such application are highly situational. [Note: this strand of behaviour could be characterised as Transfer.]

In organisations, just as in any society, knowledge is created and shared through communities. Through people interacting with each other and their environment to understand how things work and how things are connected. Managers are not so much concerned with the explicit knowledge that is captured in documents, procedures and manuals but rather with the tacit knowledge that defines how things are done around here; the tacit knowledge that makes up the structural capital of organisations. [Note: we have already characterised this strand of behaviour as Sharing.]

We saw in chapter 3 that there is an increasing recognition that the fundamental driver of performance in our organisations is informal learning, that serendipitous, unplanned learning that takes place as part of the sense making that is a feature of the modern working environment. Learning and Development professionals may only just be waking up to this and trying to harness the phenomena in their training programmes however it would appear that their clients are way ahead of them. At the receiving end there is a tacit understanding that the real learning starts when the training stops. The interviewees in the study repeatedly emphasised, using a variety of language and metaphor that communities are a primary source of knowledge transfer in the workplace and are instrumental in continuous learning. The respondents also pointed to a number of devices and structures that aided this natural process, namely:

- ◆ Providing them with a clear a mandate and objectives – in so far as modelling the desired performance
- ◆ Providing some form of co-ordination and structuring knowledge
- ◆ Giving them a voice
- ◆ Providing more accessible post course reference material
- ◆ The judicial application of coaching

[Note: all the above behaviours have been characterised as Sharing.]

It is perhaps interesting that the structures attested to above are more concerned with setting the agenda for, and enabling informal learning to take place rather than directing the process of learning. However, whether people learn by traditional means, or self-directed study, one recurrent theme was that they crave professional recognition. Whilst peer group approval may be important the respondents interviewed in this research sample were clear that formal accreditation's provided by professional bodies and other recognised associations is an important factor in their motivation to learn. Interestingly, professional accreditation is also popular with organisations, for in the absence of any agreed business metrics of success an accreditation is considered to be an appropriate surrogate for value.

Examination of the interview transcripts provides many examples of the increasing importance attached to accreditation, not least of which are the following broad motivational factors evidenced by the following observations:

- ◆ Passing exams raises confidence
- ◆ People work for exams
- ◆ People value professional certification
- ◆ Success breeds success

We saw earlier that Kirkpatrick viewed the acquisition of knowledge as a necessary pre-requisite for behavioural change, which in turn was a condition of improved performance. My study appears to suggest that increasingly students are seeing training events less as a reservoir of knowledge but more as a channel to connect them to a network of human resources through which they can continue to create and share knowledge. What then is the role of knowledge transfer in changing behaviour?

4.2.4. Changes in Behaviour

Trainers are perhaps used to thinking of behaviour in terms of direct job performance after all many jobs, and hence training, have been specified in terms of so called behavioural objectives. So for a craftsman the ability to handle tools or operate complex equipment may be a desirable behaviour whereas for a computer programmer the ability

to translate a programme specification into a line of structured code may be highly regarded. So when I enquired about behaviours I half expected to be treated to a catalogue of job related activities; this was not the case. Indeed all respondents talked of higher level, some might say softer behaviours, as being the factors that really made a difference. It should be stressed that all the programmes in the study could be termed as professional or management level training, but none-the-less amongst these broadly based learning initiatives the generic behaviours that were prized above all others were those that could be said to build community. Visible signs of creating and sustaining community were seen as anything that indicated an increase in:

- ◆ Networking
- ◆ Collaborating on tasks
- ◆ Sharing experience and knowledge
- ◆ Changes in circle of influence
- ◆ Changes to levels and nature of relationships
- ◆ Capitalising on the success of others
- ◆ Willingness to learn from the mistakes of others

[Note: here again we see a heavy emphasis on the characteristic of Sharing.]

In this list of behaviours we can discern echoes of many of the organisational fads of the 90s and the new millennium. The emphasis on networking and sharing experience is evocative of the move towards knowledge management, collaboration is supportive of the trend toward organisational learning as is learning from others and finally circles of influence is redolent of the new thrust in relationship management. There appears to be a possibility that these broader organisational imperatives have assumed a currency and level of importance in our organisations that colours and informs most pseudo management training. One wonders if we would have found a different list if this research had been carried out in the 70s and 80s when the organisational change agenda was largely driven by the quality movement and a fascination with process improvement. It raises the question of how enduring these facets may be, at what stage might we see a new wave of change imperatives and what would be the accompanying list of behaviours that would be prized under such conditions.

When we looked at reasons for the initiation of training programmes we found that high percentages were linked to organisation wide change initiatives. Such initiatives often exhort people to take a broader perspective on their jobs; there was some evidence of this in comments that pointed to behaviours that showed workers starting to:

- ◆ Think like a customer
- ◆ Take a wider view
- ◆ Understand the value chain
- ◆ Engage in longer term thinking

- ◆ Change their patterns of thought
- ◆ View things from alternate perspectives

[Note: the above behaviours have already been characterised as Transforming.]

All of the above must be discernible in the daily actions and interactions of the workplace. When asked what might be the outward signs that these things were indeed taking place the interview respondents pointed to self confidence and increased enthusiasm which together contribute to a better preparedness for the job and often to a greater willingness to try new things and take risks.

The behaviours listed above are clearly important, they are part of the fabric of today's high performance company but such behaviour do not lend themselves to simple capture nor to display on a financial scorecard. They have no place in the panoply of evaluation models that stress financial return on investment (ROI) and are rarely, if ever, specified as desirable outcomes at the start of a training initiative. And yet we see that they enjoy a place at the heart of the successful organisation. To be effective we must devise evaluation models that are sensitive to such behaviours and provide a simple indicator of organisational health on these dimensions.

During the interviews and focus groups it also became clear that there is an increasing recognition that to be truly effective in enabling trained personnel to put knowledge into practice the receiving managers need to be proactive in creating and sustaining an appropriate environment. Kirkpatrick alluded to this when he identified five different types of climate that could be created by the trainees immediate supervisor as being; preventing, discouraging, neutral, encouraging or requiring. Whilst there is no doubt that the immediate supervisor has an enormous impact on a trainees ability to put learning into practice, it appears that in today's flat organisations with high degrees of autonomy the influences are more all pervasive. None-the-less, amongst the managers in the survey there was an acceptance that they had an instrumental role in creating an appropriate practice ground. Some of the ideas that were specifically mentioned were:

- ◆ Assisting with action planning
- ◆ Removing barriers to action
- ◆ Creating space to experiment / try things out
- ◆ Tolerating occasional failure
- ◆ Coaching for performance

[Note: the above behaviours are characterised as relating to Transfer.]

So we see recognition of the importance of the receiving environment on the part of the operational managers, but where is this consideration in the standard instructional design model and how does it find its way into the evaluation framework?

4.2.5. The Supporting Environment

Learning and development professionals have been conditioned, by the near universal acceptance of Kirkpatrick's view of causality, to accept without question that changes in knowledge, skills and behaviours are all necessary and desirable outcomes of a training event. Further, that each is a natural stepping stone on route to the next level and that environment is an inhibitor that needs to be neutralised so that the effects of training can take hold. What is beginning to emerge from this analysis is an alternate view whereby knowledge, skills, behaviour and environment are just components in a complex mix that over time has the ability to bring about modifications to practice and hence radically improve performance. Whilst managers saw changed behaviour as important for most of them the behaviours were the visible indicators of changed practice and it was practice that was valued.

The survey showed a clear acceptance that inevitably there would be a time lag between acquiring new knowledge and skills and having the confidence or opportunity to attempt to put those skills into operational practice. [Note: here again we see a reference to the characteristic of Transfer.] The respondents pointed out that for learning to have a lasting impact on job performance new working practices must fit with the prevailing culture. They went on to identify simple conditions of cultural fit, namely; that activities and practices had to fit with how things are done around here, that is be consistent with normative behaviour. That it must feel right and be seen as the right thing to do, this again speaks to accepted norms. [Note: this behaviour may be characterised as Anchoring.] Finally, for practice to take hold there needs to be appropriate role models who live by the codes of the new practice. This brings us back to the central importance of line management in driving value from learning initiatives and emphasises graphically the importance of involving these managers in both the design of the programme and the specification of the evaluation regime. Often it will fall to the line manager to be that role model. However, in this research we found that the majority of training programmes did not involve or even inform the line management. Indeed all too often trained personnel were released upon an unprepared and uninformed organisation.

In the programmes that were considered to have been most successful there was evidence of the effects of the changes reaching beyond the targets of the learning experience and into the broader working environment. Several respondents identified the acid test of practice taking root as being signs that the changes in the attitudes and behaviours were becoming apparent in work colleagues and peers who had not been the subject of training. Again the indicators they valued were softer measures such as

changing sphere of influence and colleagues working to remove impediments to change.
[Note: here we see evidence of both Transforming and Anchoring.]

With so much changing and new practice taking hold there must also be a consequential change in the skills, attitudes and work patterns of the line manager. In this respect the line manager faces a twin challenge. On the one hand they are themselves buffeted by and immersed in the changing practice and on the other hand they need to work as a catalyst for change in that they need to bring into being a receptive and sustaining environment. Trainees returning to the workplace are looking for evidence of this sustaining environment in actions that:

- ◆ Provide appropriate opportunities for experimentation
- ◆ Redirects current tasks
- ◆ Shares experience and delegates wisely
- ◆ Tolerates mistakes
- ◆ Designs new practice
- ◆ Provides links to business direction and vision
- ◆ Gives feedback on progress

[Note: the above could be viewed as pre-conditions for Transfer to take place.]

If these things are in place there is a good chance that the initiative will indeed result in changes in practice.

4.2.6. Changes in Practice

Some early and obviously visible signs of changes to practice are to be found in the vocabulary and approach that people adopt in their work. As new ideas take root the vocabulary in use subtly alters as different process, practices and tools are adopted. Soon a consistency of language emerges and with it grows the confidence to apply new techniques to work situations. This is a phase of experimentation where new approaches are tried and workers make different choices in familiar situations [Transfer]. These trends were identified in the interviews that formed the basis of the research and a common thread was a marked increase in the sharing of ideas and techniques, a cascading of ideas from team to team and across functions and specialisms. Increased networking and improved awareness of the difficulties and challenges faced by others and an appreciation of the way others think [Sharing].

All of this tends to produce learning across and within work communities a learning that leads to a deeper understanding of why things do or do not work. Communities start to build new understandings based upon past experience and look for analogous models in other industries [Sharing]. The result is an increased sense of professionalism, a sense of worth and value and ultimately increased credibility with peers and customer [Transforming].

These things could easily be dismissed as intangible and too difficult to track, but the reality is that it is these very things that are noticed in an organisation. These are the symbolic behaviours that give an organisation a buzz, the things that really make a difference. You may not be able to easily measure them, but you can certainly feel them and it is painfully obvious when they are absent.

But, all of this takes time to embed, and it does not happen naturally. As we inferred earlier, change of this order can only flourish when it is positioned within a supportive and sustaining environment. We have seen that it generally falls to the line management to provide such support structures. But, of the list of support structures that trainees said they valued the only one that was commonly found in this study was the concept of work related personal action planning, a personal agenda for, and commitment to change. Where this worked best it was found to be shared with the manager and proactively followed up in the workplace.

4.2.7. Estimating Value

In my experience almost all organisations profess a desire to link investment in learning to measurable changes in business performance, this is true of the companies I do business with on a daily basis and it was true of every case in the research sample. However, the reality appears to be that in most cases such linkages and measures are seldom, if ever, identified and in their absence estimates of the success or failure of programmes tends to be based upon a range of what might be termed largely subjective value judgements. But the fact remains that organisations continue to invest large amounts on training and learning initiatives so whatever the basis of the judgement of value it appears to be satisfactory for most operational needs. [Note: the dominant characteristic in this phase is *Performing*.]

It has become fashionable to try to tie any major organisational investment to an articulated business strategy but this belies the fact that much of the action in our organisations is short term and tactical in nature or rooted in the operational exigencies of the day. It is natural to expect that a measure of the success of any initiative be it learning or otherwise, should be the extent to which it produces some impact upon traditional measures of performance. But when asked what gave them confidence that something worthwhile had taken place, not one manager opined 'a positive ROI'.

With the exception of the simplest of programmes, those aimed at the adoption of a tightly bounded procedure or practice, the experience on the ground seems to confound all efforts to establish clear links between initiatives and business performance measures. This may be because there is often no shared view of "cause and effect"

relationships or that the linkage between cause and effect is hidden or separated significantly in time and space.

All the programmes in the research sample dealt with mid range professionals engaged in activities that deployed a wide range of 'soft skills'. In programmes such as this it is often claimed that the nature of activity makes it too difficult to isolate the effects of the training from other extraneous factors that may be at play. The reality appears to be that although these programmes are often the most expensive to set up and run and are often targeted at critical mid range resource, they are subject to the least rigorous development process. There was not a single case in the survey where a comprehensive diagnostic of the trainees had been conducted prior to the initiative starting. These programmes tend to be the most nebulous and whilst there may in broad terms be a commonly agreed purpose there is rarely an agreement as to what might constitute an acceptable outcome, or how such an outcome might be recognised should it occur.

In the very rare cases where some attempt is made to articulate measures there is little evidence of any understanding that benefits may take time to appear nor was there a single instance of any form of benefits logic, or time phased benefits realisation plan.

All of which leads to little organisational learning within training departments and consequently little evidence of improvement in the selection and deployment of learning programmes and few tangible signs of their contribution to organisational effectiveness or performance improvement in terms of standard business metrics.

And yet, despite this lack of hard evidence, in almost every case surveyed the programme was considered to be an unequivocal success and in some cases attempts were ongoing to replicate the success of the programmes in other parts of the business. How then do organisations actually satisfy themselves that their learning investments are producing the required value?

4.3. The Emerging Dimensions of Value

If we adopt the classical Input, Process, Output – Outcome systems view of the overall learning process, one can map the eight strands of phenomena to the model as shown in Figure 18 overleaf.

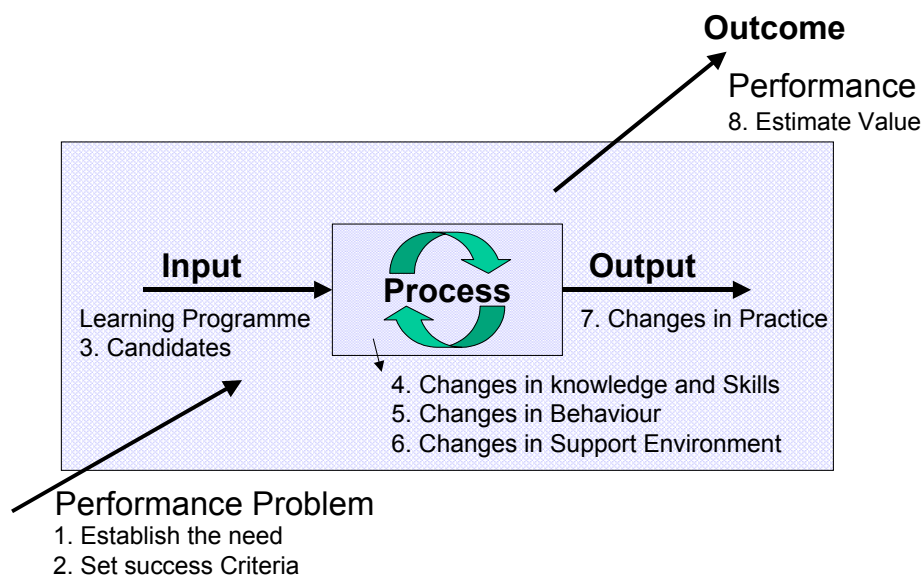


Figure 18 - Linking phenomena to the basic systems model

This model helps visualise the nature of the problem we have in devising an appropriate scorecard for tracking the effects of learning programmes. We can see that to meet my research aims it will be necessary to construct a scorecard that focuses attention on phenomena that occur specifically in the process, output and outcome phases of the model. Further any such metrics should be time phased so that early indicators of change are visible. Other models tend to treat each strand of phenomena as discrete variables that can be measured without reference to the other dimensions, hence Phillips focus on isolating the effects of training. This practice appears to me to be both unrealistic and counterproductive. Patently these strands of phenomena are not independent, they feed off each other and are inextricably linked in their combined effect upon the eventual outcome. Ideally we should be looking for trans-dimensional effects that are repeated across strands of phenomena and may be considered to work synergistically to produce outcomes.

Inspection and combination of the preliminary propositions set out in chapter 4.1 above reveals just such trans-dimensional effects. We saw in chapter 4.1.4 that two key characteristics emerged, namely; Transfer and Sharing. These same characteristics were also found in the phenomena that were reported as being associated with behaviour change (chapter 4.1.5) and change in Practice (chapter 4.1.7). Continuing this analysis across all the preliminary propositions it is reasonable to suggest that the visible impacts of training may be collected and displayed along six axes, or dimensions, of impact. Each axis may be considered as a value creating / transferring process. The six dimensions so identified are: **Performing**, **Transferring**, **Sharing**, **Transforming**, **Championing** and **Anchoring**.

The balance of evidence drawn from the interviews in the research sample appears to suggest that where there is visible movement along some or all of these six dimensions then value may be determined to have been created.

4.3.1. Performing – Noticeable changes to traditional business metrics that can be attributed to the effects of training

Performance is both the driver and ultimate arbiter of success in training. It is a gap or deficiency in performance that leads to the identification of training opportunities, it is therefore at this stage that the new benchmark of performance should be envisaged and specified. Traditionally it is the task of training to find ways to engender, stimulate and sustain the desired performance and the role of evaluation to confirm that such changes in performance have indeed come about. The measures of performance must be specific and meaningful. If one adopts an input, process, output, outcome model then the measurements should naturally gravitate towards outputs and outcomes and they must be clearly identified with the performance in question. For example in the context of an IT help desk environment a useful short term metric may be, time to successful problem resolution. This has the merit of being customer focused and very measurable. However, in the longer term this metric alone may be counterproductive for from a customer perspective it would be better not to have a problem at all rather than receive excellent service but be beset by problems. A useful longer-term measure would therefore be to reduce the incidence of problem occurrence with each technology rollout. The selection of appropriate business metrics is a complex issue that needs sensitivity and some experimentation to achieve an acceptable balance. It has been shown that in human systems measurement tends to produce compliant behaviour and performance rather than reflecting performance. Leading to the aphorism that you tend to get the behaviour you decide to measure.

4.3.2. Transferring - Techniques and skills from the learning programme are adopted in the workplace.

The signs to look for are people trying out the ideas and techniques that they learned in the training to real problems in the context of day to day work. One receiving manager commented that the training appeared to have had the effect of:

“bringing them all to a common standard in the language of analysis in terms of what are the processes, what are the rules, what are the specifications.”

and that as a result:

“they now understand there is no ambiguity about what anybody means.”

This consistency of approach and standardisation of practice is a critical aim of most training programmes. But, it must be understood that proficiency builds over time and it

is incumbent upon line management to provide an environment where workers have the confidence to try to apply newly acquired skills in an operational environment (Mumford and Gold 1997).

More advanced indicators are critical appraisal of new techniques and recommending changes to suit local conditions and culture, or working to adapt local processes to take advantage of new techniques.

4.3.3. Sharing - People share knowledge and experience.

The things to watch out for here are signs that people are becoming more connected. This is likely to start with people spontaneously sharing stories of success and failure and could build up to the formation of communities of practice. This is evidenced by comments from managers along the lines of *"We encourage them to keep track of their successes and share them and keep in touch. We have some real good stories of a million \$ here or there that show that we are making a difference"*. One important side effect of this connectivity is that the organisation starts to gain a better understanding of where centres of tacit knowledge lie, in simple terms, who knows what. This in turn leads to connecting people together to better utilise corporate memory and experience. This improved connectivity was perceived to be a key side effect of many of the programmes as evidenced by comments such as observable increases in *"Networking, partnering and collaboration"*. As collaboration grows and virtual teams start to develop it is common to see people building a willingness to accept collective responsibility for outcomes.

4.3.4. Transforming - People show signs of new ways of thinking and working.

Early signs to look for are a willingness to try new things, viewing and thinking about problems differently which in turn leads to using information differently and thinking about the results of their own actions. Typical of manager's comments in the arena were observations such as *"Seeing ideas through to completion picking up all those great ideas that would otherwise be left by the wayside"*. As individuals gain confidence we might expect to see signs of being more prepared to take decisions and to take personal responsibility for results. Decision making is becoming a critical business attribute as indicated by comments such as *"Decision making is also key; the velocity of decision-making has increased so we see decision-making skills as absolutely critical"*. At this stage you would expect to see people forming new relationships and developing a wider circle of influence all of which ultimately leads to less direct supervision and a more mentoring style of management. Evidence that these habits have become truly embedded may be taken from people starting to take a third person view. e.g. identifying with the customer (internal or external), as one manager *opined "Do they talk*

about the business challenges of customers” and “do they talk about customer service and the efficiencies of the way we have satisfied their requirements”. Are they adopting a wider, longer term view and demanding that their colleagues act ethically and with integrity.

4.3.5. Championing - Learners enjoy their experience and recommend it to others

The usual evidence for this is positive end of course reviews but this research has shown that senior managers place greater relevance upon secondary measures. Key amongst which are other senior managers and high levels speakers wishing and willing to commit time to the programme. Informal feedback and anecdotal evidence of value from the field come in the form of success stories and case studies. But without doubt the most positive sign is when other managers wish to be associated with the programme or to emulate it in their own areas of the business. One manager in particular told of an initiative that had initially received little management support but once successful senior management adopted it and there was rapid evidence of emulation in other departments. He was quoted as saying, *“now there is a testing competency manager and they have there own training in place” and “also the project management community have recently appointed a competency manager and they are looking at how they build competency going forward.”*

Perhaps the most powerful sign is when workers start to proactively advocate and disseminate best practice to their peers resulting in techniques being adopted beyond those who were part of the trained community.

4.3.6. Anchoring - The organisation and the employee adopt a symbiotic approach to personal development.

Anchoring is seen through processes built around the idea of linking learning and development initiatives to broader organisational goals through tangible links into the appraisal process and as an input to personal development plans. The interviews pointed out the criticality of senior management support and talked of a desire to see initiatives driven; *“more effectively from a corporate level”* and for *“most senior management to show passion and belief in the concepts that underpin the training”* as this leads to *“line management below them may also see it as important and then things like this get followed through”*.

Trainees should be encouraged to build action plans giving details of how they will incorporate new techniques into their practice. One would expect to see them sharing their plans with line management and working together to create opportunities for personal growth. The creation of information sharing structures can give the line

manager dynamic data on the progress of the training programme and help the manager to drive and gain acceptance of organisational change. Finally softer symbols are a commitment to developing future talent and a willingness to take account of individual as well as organisational needs.

4.4. Finding a Purpose for Evaluation

Evaluation is the mechanism through which we acquire feedback about the effectiveness of organisational initiatives. Its purpose is to inform management decision-making and facilitate action. Specifically in the context of training, evaluation may be viewed as the process through which we assure that our learning and development initiatives help to produce the desired individual and collective changes in practice and that such changes are supportive of the business goals that gave rise to the initiative. In general business goals would involve some form of step change in existing performance or the establishment of new levels of performance.

We have seen that much of the available literature approaches the problem of evaluation from the perspective of the training, or learning and development professional. But, it is the business that funds these initiatives and this research would suggest that by and large the business have a different set of perspectives when it comes to evaluating outcomes. This duality of purpose and stakeholder is graphically represented in Figure19.

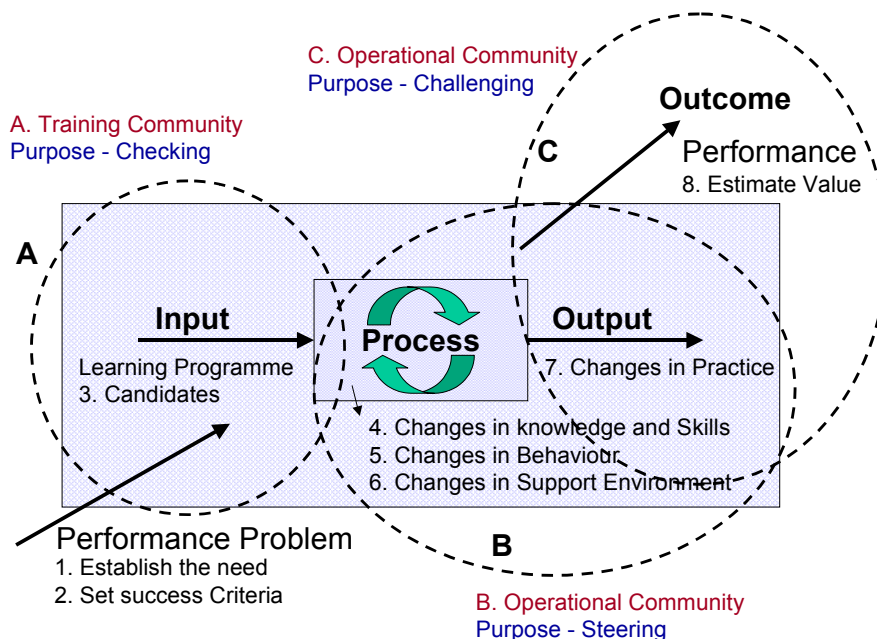


Figure 19 – The two stakeholder groups in evaluation

The above diagram illustrates that the traditional view of evaluation as a process conducted by the training community is limited in both scope and scale. This research has indicated that we need to move the emphasis for evaluation downstream into the workplace. We need to focus upon the processes that enable changes in knowledge,

skills, behaviour and support environment to effectively transfer into lasting changes in practice and for these changes to subsequently transform the business and become anchored in the culture.

Previous attempts to satisfy the obvious need for evaluation to have real business relevance have concentrated upon attempts to link training outcomes to hard financial measures. Again this research suggests that whilst these are important they are not generally the measures that businesses are naturally disposed to use when judging value. It would appear that in this, as in many things, there is a disparity between espoused practice and actual practice; when it comes to making critical business decisions about the effectiveness of training one cannot dismiss the power of the 'feel good' factor. How then can we modify our approach to evaluation to actually look for, capture and display the phenomena that contribute to building this feel?

In the next chapter I will pull together the consistent threads that have emerged from real practice and propose a new framework for evaluating the impact of learning initiatives in our organisations.

5. Towards a New Model for Valuing Learning Programmes

5.1. The Legacy of underachievement

Organisations do not invest in training in order to keep the training department busy nor do they invest in evaluation in order to prove that the training department is doing a good job. However, in his latest book, Kirkpatrick lists this as the primary purpose of evaluation (Kirkpatrick 1998). He lists secondary considerations as the decision whether to continue or discontinue training programmes and gaining information on how to improve future programmes. Whilst the final reason does point to organisational learning and hence the improved selection of training initiatives, the general tone points to what I consider to be the fundamental problem with the conduct of training evaluation as it is currently practised. That is that, it is designed by training professionals, for use by training professionals who subsequently process data which is almost exclusively circulated to yet more training professionals (Abernathy 1999; Islam 2004). Indeed Abernathy quoting Bernthal goes so far as to question if the wide acceptance of Kirkpatrick may have “limited our thinking regarding evaluation and possibly hindered our ability to conduct meaningful evaluations” (Abernathy 1999).

I believe that the only way to break this incestuous and ultimately debilitating cycle is to recognise that the only people in a position to judge the extent to which training has produced an impact on a business goal are those people who are charged with managing the business processes that gave rise to that goal. Therefore, the design of a training evaluation regime must precede the implementation of the training, it must include business managers from the outset and should be constructed to be operated by and inform those same managers.

As I see it, Kirkpatrick is not an evaluation framework, it is rather a set of conditional propositions that relate the acquisition of skills and knowledge to the development of behaviour and subsequent performance (Phillips and Stone 2002). Even then I question the continued validity of the basic premise when applied to modern learning initiatives that encompass large elements of self directed and team based learning and take place over an extended period in the workplace. Furthermore, Kirkpatrick’s and by extension Phillips ROI models largely eschew intangible benefits, the very evidence that this research has shown to be critical in demonstrating practical value. The prevailing assumption appears to be that evaluation can only be effectively performed for that subset of tightly bounded situations such as systems or process training or specific health and safety programmes where error rates, rework or accident statistics are readily available. In all other cases we are valid in throwing our arms in the air and claiming sorry we would like to do this but it’s just too difficult (Kirkpatrick 1998; Abernathy 1999; Phillips and Stone 2002).

The findings of this research point to the need for an evaluation framework that covers the whole of the learning and development life cycle; one that ideally is linked to and cross-referenced with the traditional instructional systems design model (ISDM). This view is supported by practitioners who are charged with implementing evaluation in organisations (Brinkerhoff 1998; Bushnell 1998). Further, it should be business-focused and business driven, providing management guidance to the business and supporting decision-making (Kirkpatrick and L'Allier 2002; Islam 2004). It should also provide ongoing quality and operational feedback to allow the training initiative to be managed through its life cycle (Cross 2004).

5.2. The Unanswered Questions Revisited

I completed the introductory chapter to this report by pointing to a series of unanswered questions with regard to Purpose, Perspective, Process and Payback. It was my contention that despite 50 years of interest in the subject of training evaluation there remained a significant lack of clarity in each of these areas and that lack of clarity is I consider largely responsible for the poor levels of practice in the field. This research set out to determine how people in our organisations actually ascribe value to learning initiatives and then to wrap process around and try to formalise what takes place so that it can be replicated in similar situations.

In terms of perspective it is clear that there are two major stakeholder groups namely, the training community and operational management. It is also clear that by and large these two groups have competing and none complementary needs. The needs of the training community are relatively well served by existing evaluation models. Specifically, Kirkpatrick level 1 and 2, provide an adequate check on the efficiency of the training process. However, significant difficulties arise in the application of Kirkpatrick level 3-behaviour, as a means of assessing effectiveness in the checking mode. There is little evidence of evaluation being used by the training community in the steering or challenging role and assessments of value creation, when done, tend to concentrate on pseudo financial metrics. In the research sample there was no evidence of the operational management community being systematically involved in the evaluation process; although these are the very people who need the results of evaluation to tune organisational performance. There was evidence of a need for this group to be involved in evaluation from the purposes of steering and challenging. The research showed that existing models of evaluation poorly served this community and that they would find little or no value in data referring to reaction or learning. They desperately need data on value creation but view with scepticism financial metrics such as ROI as it provides no basis for dynamic decision making and steering.

It is the intention of this researcher to accept those elements of current practice that appear to serve the training community well and to concentrate upon the articulation of a supplementary model that might better serve the operational management community. In so doing the aim is to involve this community and enable them to apply evaluation techniques simply and consistently and thereby obtain management information that supports the purposes of steering and challenging learning programmes.

That being the case it is considered that there are currently three areas where confusion reigns and clarity is needed. These are:

- ♦ **Purpose** - what questions do we wish the evaluation to answer and who is best positioned to own the process?
- ♦ **Process** - what are the major steps in an evaluation model and how do they fit with the training design and development process?
- ♦ **Scorecard** - once a process has been established are there a consistent set of indicators that can be deployed to build management confidence that something worthwhile has accrued from the investment in training.

The propositions that have emerged from this research have led to the formulation of a new theoretical perspective on these three questions. This theory is grounded in the reality of experience in a number of organisations. What follows in the remaining paragraphs is an articulation of an approach which, when combined with the best elements of existing practice, should produce a more holistic picture of the success or failure of training initiatives.

The theory as presented is grounded in practice and is internally consistent insofar as the propositions are traceable and logical. It is reflective of experience and has been subject to peer review through discussion and publication in journals and professional conferences. It has not however, as yet been fully tested in practice and therefore cannot be considered as fundamental truth.

5.3. Understanding the Purpose of Evaluation

It could be argued that one of the most fundamental weaknesses of current evaluation models is that they try to serve multiple purposes for multiple stakeholders with competing and potentially irreconcilable goals. Just as 'no servant can serve two masters' [Bible, Mathew 6.24] (1989), then surely no single evaluation model can be expected to cover the whole gamut of evaluation purposes.

I suggest that the evaluation process needs to fulfil three discrete purposes spread across at least two organisational communities. The purposes are to; Check, Steer and

to Challenge and the major stakeholders are the training community and operational management.

5.3.1. Evaluation as a means of Checking

The checking role of evaluation is of interest to both the training community and the operational managers. Trainers need to understand the efficiency of their training offerings in terms of delivering the agreed knowledge and skills to the agreed community. To do this they must answer questions such as, is the design appropriate? Are the materials of the right level and accessible to all? Are the formal parts of the programme delivered in the most effective manner? Could the programme be improved by adjusting the nature, approach or presentation of any of the materials? Operational managers, by contrast are interested in whether or not the learning experience complements the activity in the workplace. They wish to know if there are appropriate structures in place to support the learners and help them translate new knowledge and skills into improved practice.

5.3.2. Evaluation as a Steering Mechanism

This phase of evaluation should also be of interest to the same two communities, but this research showed only limited interest in this role on the part of the training community. Steering is about getting in flight feedback so that the experience can be modified along the way. This should be of interest to the trainers because on long programmes they have an opportunity to fine tune materials and delivery in the light of performance. Feedback generally comes in the form of quality statistics from reaction surveys but can also come in the form of test scores from internal or external accreditation examinations. Both sorts of results can, and often are used very effectively to inform and develop programme material.

It is also possible to reach out into the post training community to survey how useful they have found the training experience and what success they are having in applying the ideas, concepts and techniques in the working environment. These are the sort of steering data that operational managers desperately need so that they can more effectively design and sustain the practice ground for returning trainees. For it is through collective experimentation in the workplace that new knowledge is developed and skills transfer takes place, without these structures and appropriate coaching and feedback the overall level of professional practice is unlikely to improve. In this research sample, there was not a single case of any programme systematically reaching out to obtain this sort of evaluation data. Discussions and focus groups with practising Learning and Development professionals and analysis of published evaluation case studies also confirm this evidence. Indeed in the few cases where there is evidence of post training

sampling in the workplace the results are invariably used to modify the training materials rather than the receiving environment.

5.3.3. Evaluation used to Challenge Assumptions

The final role of evaluation is to challenge, that is to challenge the assumptions that gave rise to the training requirement. In this role the primary, indeed possibly the only stakeholder is the operational manager. It is the operational manager that diagnoses the performance problem; the operational manager should therefore work with training professionals to identify the extent to which a gap in skills, knowledge or application is to blame or whether the issue is a deeper malaise or a failure in the learning cycle itself. Whatever the decision, it will be based upon a developing understanding of how people, processes and systems work together to produce productive outcomes. Evaluation has a role not just in discerning any subsequent change in outcomes as a result of training but also in testing the assumptions that underpin how the outcomes are produced. In this way evaluation can not only prove the value of learning but can also deepen the understanding of core business drivers and their relationship to performance outcomes. In so doing it can only enhance the effectiveness of critical business processes.

5.3.4. Refining the Purpose

In proposing a new model of evaluation it is important to understand where current models serve us well and to pay appropriate homage to those models. We have seen that current models serve the training community and very effectively service the 'check' purpose. For this reason the supplementary model that is to be presented is designed to be used for and by the operational management community and to specifically address the purposes of 'steer' and 'challenge' with regard to the deployment of large scale training programmes.

5.4. Understanding the Process of Evaluation

5.4.1. Towards a Holistic Model of Evaluation

Before embarking upon a description of a new model we can see some guiding principles emerging from the symbiosis of the research findings, the lessons learned from past attempts at evaluation and recent literature in the field of human performance technology (HPT). In broad terms the principles can be stated as:

- ◆ Training and Learning initiatives should be aligned to identified performance issues. Current performance should be benchmarked and new goals set
- ◆ Evaluation criteria should be defined at the earliest stage of programme design
- ◆ Evaluation should be managed by the people who have the responsibility of delivering the performance

- ◆ Evaluation criteria should include a mix of hard and soft measures that together provide as complete a 'feel' as possible of the desired performance state and business outcomes
- ◆ Measurement of progress against the evaluation criteria must take place in the workplace
- ◆ The results of evaluation should be used to both steer programmes and challenge understanding of the drivers of performance
- ◆ The results of the evaluation process should be shared widely
- ◆ The effectiveness of the evaluation process should itself be subject to evaluation, this may be part of the 'challenging' role

These principles are consistent with the general findings of the research and look to be a sound basis for new theory, but they are as yet untested in practice. The model that is emerging from these principles is presented in following paragraphs.

5.4.2. A Life Cycle Approach

Inspecting the basic principles set out above one cannot avoid being struck by the breadth and scope of the evaluation process. Unlike the Kirkpatrick school of models, where the uninitiated could be forgiven for seeing evaluation as a process that only has relevance in the 'end game', these principle show that to be effective evaluation must span the life cycle of a training intervention from birth to death. This more holistic view of the span of evaluation has, I would like to believe, always been appreciated by leading thinkers in the field but the poor articulation of the models in this respect has led to inappropriate, and to my mind, unacceptable levels of practice. In articulating a new model for evaluation the aim must not only be to move the emphasis of evaluation forward in the life cycle but also to shift the locus of responsibility for evaluation away from the training community and toward those charged with delivering business performance.

One of the lessons that was apparent from this research was that to have any chance of modifying practice and having a lasting impact on job performance new working practices must fit with the prevailing culture. Conditions of cultural fit were identified as being those activities and practices that naturally fit with how things are done around here, that is be consistent with normative behaviour (see paragraph 3.1.6). This being the case it is imperative that any new model for evaluation should obey the same criteria, the prevailing culture for programme design in the training community is the instructional systems design model (ISDM), and specifically ADDIE (Analyse, Design, Develop, Implement, Evaluate). It is therefore important that any proposal for evaluation should be consistent with, and parallel to, the ISDM model. The ADDIE model is widely publicised and taught in the USA but is less well known in Europe, despite this apparent

lack of obvious presence the influence of ADDIE can be discerned in virtually all training design thinking in the UK. Many training professionals may not be immediately familiar with the acronym ADDIE but when asked would articulate the same life cycle model of analyse, design, develop, implement and evaluate.

5.4.3. The Sutton Model of Evaluation

I therefore offer the following five-stage evaluation life cycle as being the synthesis of the research findings, best practice emerging from the literature and industry opinion, see Figure 20 below. I believe that this model satisfies the basic principles set out above and that it represents a more holistic view of the role of evaluation in checking, steering and challenging training programmes.

The steps in the life cycle are:

1. Initiation - determine decision-makers information needs
2. Set programme goals – business outcomes and training outputs
3. Design and pilot the evaluation regime
4. Monitor and control the programme
5. Demonstrate and share information on accrued value

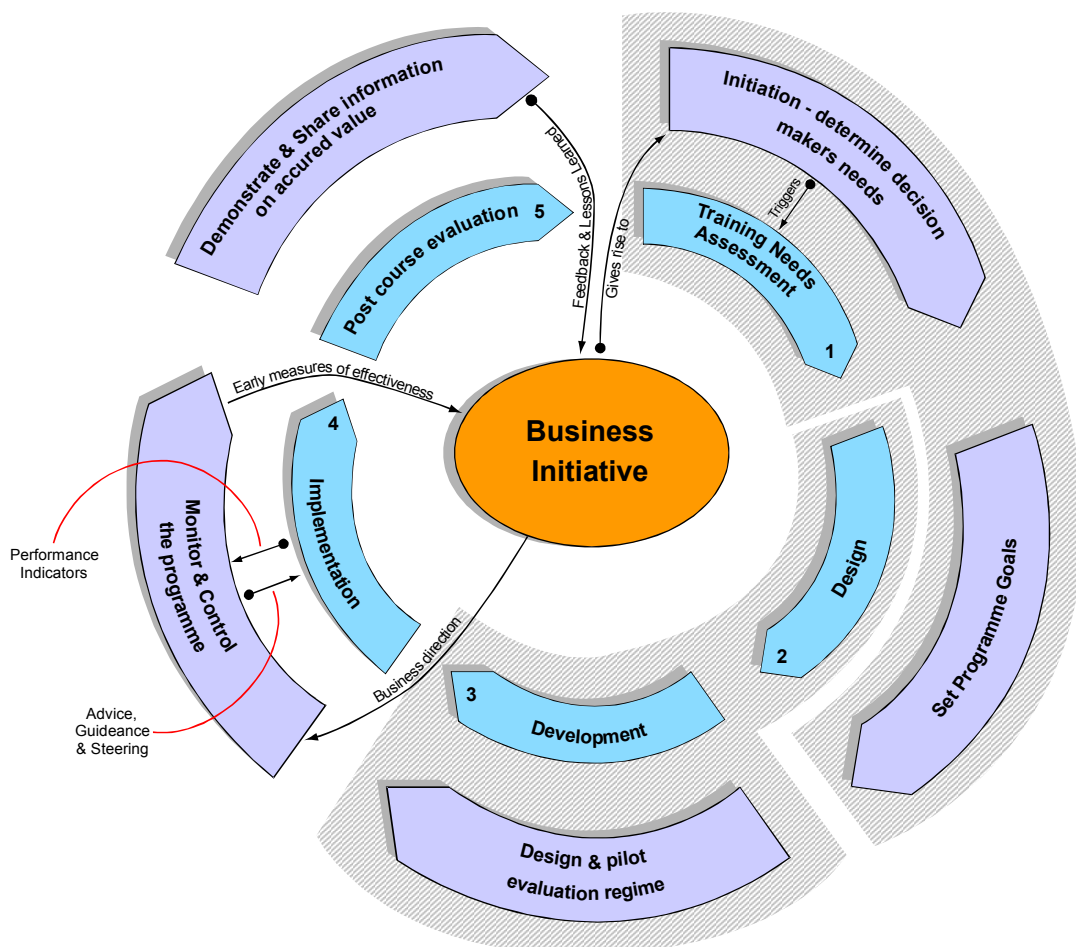


Figure 20 – The Sutton five-stage evaluation life cycle

The value of a model such as this is that it ensures that evaluation is thought about at the earliest possible stage of a learning and development initiative and that business managers are intimately involved in every aspect of the evaluation life cycle. It makes explicit the steering role of evaluation and promotes wide stakeholder involvement at every stage of the life cycle.

The five stages are elaborated upon in the following paragraphs and Table 2, provides a useful summary of the main points of the model and a mapping to the ISDM model.

5.5. The Sutton Five Stage Model – An Overview

There follows a description of the five levels of the model in general terms in order to clarify the purpose of each step.

5.5.1. Stage 1: determine decision-makers information needs.

Organisations engage in learning and development programmes for a variety of reasons and they may not have a discipline of articulating these clearly to the same level of rigour that would be expected from a technology project of similar budget. The vast majority of the programmes in the survey were initiated with one or more of the following aims in mind:

- ◆ Bring about fundamental change – move people out of their comfort zones
- ◆ Establish new ways of working
- ◆ Bring about incremental performance improvement
- ◆ Improve perceived poor service
- ◆ Identify and grow essential skills within the business

Whilst trying to achieve these aims it was also deemed important to:

- ◆ Link training to business strategy and reflect leadership priorities
- ◆ Target specific competency areas
- ◆ To maintain central direction and influence career development

Only by understanding the underpinning reason for the initiative is it possible to work with operational managers to define their specific reason for evaluation and through that the nature and frequency of information flows that will be needed to guide the programme to a successful outcome. As Islam puts it we cannot continue to build evaluation regimes that “virtually ignore the perspective of the entity that, in many cases, finances the training to begin with, the business stakeholder” (Islam 2004).

At this stage we need to be clear not only how the programme came about but also what the major focus of management is to be during the programme, which role is evaluation

to play? Are we focused upon checking, steering or challenging. Each role has subtly different information needs and our aim then must be to construct evaluation criteria that illuminate rather than cloud management decision-making. If the evaluation is to fulfil more than one purpose it may be necessary to build multiple evaluation models with different reporting focuses. If the purpose of the evaluation is to steer or challenge we need to be aware that some of the planned indicators may take some time to emerge, this is particularly true along the dimensions of Transforming, Performing and Championing. We need to be aware of key decision making dates so that we can plan information reporting accordingly.

5.5.2. Stage 2: Set programme goals

We have already engaged the major stakeholders and management in identifying their information needs the next step is to get them to envision and describe what success would look and feel like. This should be described in terms of both hard and soft measures. A good first step is to seek answers to the following key questions:

- ◆ What is the desired level of performance? (concrete measures are needed and this should be related to the baseline and should include a time by which the performance is to be achieved)
- ◆ What will it feel like to work in this environment?
- ◆ What difference will our customers (internal and external) feel?

The answers to the first question permit the construction of hard performance measures, whereas the answers to the final two questions permit the tailoring of the soft scorecard to create a balanced view of the totality of the performance to be produced. A proposal for an outline scorecard will be presented later in paragraph 4.6.

Once we have described the to-be state in these terms we need to construct a balanced basket of measures that graphically depict the current state and the to-be state. How we collect data and present it will be governed by the context of the evaluation and the primary purpose. If for example the purpose is to steer the programme we will need to collect dynamic data and present it in a dash-board format so that managers can see from day to day how the programme is progressing and can judge the effect of any decisions and corrections they make. If on the other hand the purpose of the evaluation is to challenge, then a more confirmative approach can be adopted, in this case we need to display information about each stage in the value chain ending in outcome data. When the purpose is to challenge it is essential that a cause and effect chain is established (benefits logic) so that the contribution of each element of change can be assessed in terms of the overall incremental improvement.

As we define the data to be collected we need to examine when it would be reasonable to expect to see the behaviours and practices emerging and what adjustments may be needed to the working environment (including processes and systems) in order to facilitate these changes. Then construct a small number of measures that clearly indicate progress along each of the dimensions that represent the desired look and feel. Some practitioners call these performance agreements, they can be very effective but if used we must explicitly state the what-ifs and maybes using assumptions that sponsors can relate with (Cross 2004).

Contrary to popular belief, most management decisions are based upon emotion and gut feel rather than any rational decision model. So in a world where perception is everything don't be frightened of subjective measures.

5.5.3. Stage 3: Design and pilot the evaluation regime.

When designing the evaluation regime think about it as a mechanism for collecting and widely disseminating information about the progress of the initiative so that all those involved can ensure that they contribute effectively and make decisions that are good for the programme as a whole. This means working with management who commissioned the programme but it also means working closely with the line managers who will receive the trainees and whose task it is to embed new practice. The line manager is fundamental to creating and sustaining an environment that:

- ◆ Provides appropriate opportunities
- ◆ Redirects current tasks
- ◆ Shares experience and delegates wisely
- ◆ Tolerates mistakes
- ◆ Designs new practice
- ◆ Provides links to business direction and vision
- ◆ Gives feedback on progress

Work interactively with line management to determine the major parameters of the ideal receiving environment. Modify policies and procedures as necessary to help bring about the desired supporting environment and ensure all management understand the aims of the programme. The line manager will need feedback on progress along each of the dimensions of value and needs to understand where barriers to change exist. The evaluation regime should be the primary source of this in flight information.

Self and peer evaluation can reveal a lot about peoples attitude to work and the way they deploy skills and knowledge in solving day to day business problems. As Abernathy points out 360 assessment is an excellent method to determine whether co-workers have experienced a difference in the performance of the training participant

(Abernathy 1999). If an assessment tool shows that people feel good about themselves and their colleagues and feel a collective responsibility you can be fairly sure that the business performance measures will mirror the positive trend. McLinden, quoted in Abernathy, points out that we need to “communicate results clearly to business people who are not necessarily interested in the fine points of statistics and research design” (Abernathy 1999).

5.5.4. Stage 4: Monitor and Control the Programme.

During this phase the training community will concentrate upon the assessment of reaction and learning in order to monitor and control the conduct of the training programme. However, the operational community will have a different emphasis, here the focus should be upon the overall direction of the programme and the identification of early signs of progress towards the stated and agreed goals. The Scorecard should be a mix of standard measures of business Performance combined with a rich picture capable of tracking and displaying changes along the ‘dimensions of value’ of Transfer, Sharing and Transforming that collectively give rise to new levels of practice. I place emphasis on the word practice as this implies performance in the workplace, the point being that the gaining of a degree of competence only matters if that competence translates to improved job performance (Garavaglia 1998). Today’s managers are seeking data that shows the business impact of learning and development both from a short term and a long term perspective (Phillips, Phillips et al. 2004). Such a balanced basket of measures (term coined by Kaplan and Norton in their attempt to broaden the organisational performance debate beyond just financial measures (Kaplan and Norton 1992)) was absent from all of the cases in the research sample. Indeed other than the routine collection of reaction data and end of course focus groups, none of the organisation sampled exhibited any planned post course data gathering. One case only sought to instigate this type of research in response to unsolicited success stories from the field. In a number of cases, changes in the behaviour, demeanour and practice of the trained personnel led managers and customers to remark upon the changes – such stories of success enhanced the reputation of the programmes and led to the initiation of copy-cat programmes. Such stories should not be left to chance, the collection and sharing of this sort of Championing data should be an integral part of the evaluation regime. If the programme is of sufficient duration and the overall change environment is relatively stable it may be possible to include Anchoring indicators in the scorecard.

5.5.5. Stage 5: Demonstrate and share information about accrued value.

This phase of the evaluation cycle has two purposes, firstly it needs to identify and track any changes in key business metrics agreed in the goal-setting phase and also build upon the rich picture of change by adding further information about progress along each

of the dimensions of value. Secondly, it governs the communication and influencing strategy that is so important to building a wide-ranging appreciation of the benefits accrued from the programme. Indeed our aim should be to create an ongoing dialogue and hence to shape impressions and decisions over the long run (Pulley 1998).

This research appears to show that when assessing value creation, there are key differentiators that recur along six dimensions of value regardless of the nature of the programme content. The scorecard has been designed to highlight changes on each of the dimensions and has been time phased to facilitate data collection and reporting. Immediately after the training intervention it is reasonable to look for and report incremental changes in Performance together with data on the progress of Learning, Transfer and Sharing. All the above measures, used consistently can fulfil the evaluation purpose of steering which allows the operational community to fine tune the programme to produce the best balance of performance on all dimensions. As the programme matures it may be expected that data gathering will encompass a wider range of stakeholders and the locus of evidence will shift to observing changes in the wider organisation beyond the scope of those immediately involved in the training intervention. In this way we can fulfil the challenging role of evaluation, here again the emphasis of the scorecard will be on Transfer, Sharing, Transforming, Championing, Anchoring and Performing. In all cases .it is important that the business and operational line managers are involved in the collection, analysis and dissemination of evaluation data and that it is structured in a manner that aids their decision making process.

5.5.6. The Sutton Model – An Aide Memoir

Instructional Systems Design Model (ISDM)	Evaluation Life Cycle	Focus for Evaluation
Needs Assessment	Stage 1: Initiation – Identify Information Needs	<ul style="list-style-type: none"> • What are we trying to do? • Is this linked to broader business strategy? If so how? • Who are the decision makers? • What information do they need and in what form? • What will they do with the information and when will they need it?
	Stage 2: Set programme goals	<ul style="list-style-type: none"> • What are the overall business goals related to this initiative? <ul style="list-style-type: none"> • Is it linked to fundamental organisational change? • Is it designed to roll-out best practice? • What does the desired end state look and feel like <ul style="list-style-type: none"> • How will you recognise you are there? • At what stage is it reasonable to expect to see the effects of the change? <ul style="list-style-type: none"> • Construct a time phased benefits realisation plan • What else would give the decision makers comfort that progress is being made? • Construct and agree a set of time phased key indicators on each of the dimensions of value
Design & Development	Stage 3: Design and pilot the Evaluation Regime	<ul style="list-style-type: none"> • Benchmark all levels of current performance against the chosen indicators for each dimension of value • Design the criteria for evaluating changes in knowledge. • Construct data gathering mechanisms for the training community to assess reaction and learning and hence manage the conduct of the training programme. • Plan and effect changes to any policies and procedures needed to bring about the working environment that will help operational managers to drive the adoption of new practice. • Engage management in action planning to drive new behaviours on all dimensions of value. • Test and validate the data gathering mechanisms to be used in the workplace. • Pilot the reporting mechanisms.
Implementation	Stage 4: Monitor and Control the Programme	<ul style="list-style-type: none"> • Evaluate and report upon reaction and learning for the benefit of the training community • Deploy the scorecard and identify and report upon the agreed indicators against each 'dimension of value' • Modify the locus of evidence from the workplace to the broader organisational environment as the evaluation stages progress. • Report dynamically to permit steering of the programme
Post course evaluation	Stage 5: Demonstrate and share information on accrued value	<ul style="list-style-type: none"> • Share evaluation data regularly and widely. • Use the data to support and facilitate decision making. • Show how the six dimensions of value have contributed to producing the desired Outcomes.

Table 2 – The five-stage Sutton model of evaluation – alignment with ISDM

5.6. The proposed Sutton Scorecard for Evaluation

We saw in chapter 3.2 that six value creating dimensions emerged from the research propositions namely, performing, transferring, sharing, transforming, championing and anchoring. Added to these are the two commonly deployed and effective training evaluation criteria of reaction and learning. Together these eight dimensions provide an evaluation scorecard that can in theory satisfy the three purposes of evaluation; check, steer and challenge. For the two identified stakeholder communities, training professionals and operational managers. The proposed scorecard fits neatly into the proposed Sutton life cycle model of evaluation. In practice it would be tailored in stage1, specified and elaborated upon in stage 2, mapped against data collection instruments and tested in stage 3, employed as a monitoring mechanism in stage 4 and used as the basis for information visualisation and communication in stage 5.

Paragraphs 4.6.1 through 4.6.8 provide additional detail on each dimension of the scorecard and cross references insights gained from the propositions articulated in chapter 3. For each dimension a table lists the data attributes that have already been identified as pertinent to assigning value to that dimension. It should be noted that the tables are as yet incomplete as further research needs to be conducted to further enrich the understanding of each dimension.

5.6.1. Reaction

This is the traditional end of course customer satisfaction survey it elicits information upon the participants immediate reaction to the event or experience. Typically the survey will seek feedback on the quality of the instructor (both in terms of knowledge and ability / style), the materials (in terms of completeness, usefulness and presentation) the learning environment, equipment used, the administrative procedures leading up to the event etc. There is usually a requirement to assign a score to the overall experience and an opportunity to provide free text input on best things, worst things, things that could have been added. Very occasionally the questions may be expanded to ask the student how much of the material is immediately relevant to their jobs or if they feel their time was well spent. This sort of information can identify incidence where working practice may have changed since the training needs analysis was conducted and ergo can point to the need to update materials to reflect new needs. Clearly much of this satisfaction data is useful to the training department who may be able to immediately identify failures in administrative procedures, get early warning of the degradation of facilities or have highlighted poor performance of instructors. Over time the aggregation of such data can point to trends in performance or gradual decline or improvement in key areas.

It should be stressed that all of these measures are vitally important in that they point to the overall efficiency of the training delivery process. This level of information is critical to the training community but has little or no value to the operational community in that it gives them no guidance on what to do or how performance can be modified.

5.6.2. Learning

This is concerned with measuring the learning, some would argue retention, and ability to apply concepts, principles, facts, techniques and skills acquired during the training process. Typically there is an attempt to employ objective based testing and also a preference for measurement tools that permit simplified scoring. In the ASTD state of the industry report suggests that only about a third of all training evaluations employ learning evaluation (Sugrue and Kim 2004). Often we are seeing performance in a professional accreditation as being a surrogate for a learning assessment. Learning can be assessed in the workplace by observation and one on one assessment of performance on work-based exercises, this is the approach favoured for NVQ's and whilst effective is time consuming and expensive.

From the perspective of the training community such assessments bring both value and perils, the value is that it provides a measure of knowledge transfer, the peril is that the trainer may start to coach to the exam and hence produce an artificial pattern of the real value of learning. Other than as a confidence booster, learning measurement is of little practical value to the operational community in that it does not on its own aid decision-making or point to remedial actions to promote performance. Learning is a key 'checking' measure for the training community, when combined with reaction data it gives a more complete picture of the efficiency of the training process. It can, if measured in the workplace and combined with data on learning transfer, start to point to the effectiveness of the training process.

The operational community could effectively use learning measurement in combination with transfer, sharing and performing data to assess the overall effectiveness of the creation of new or improved levels of practice in the workplace and hence as a mechanism for steering long term or critical training interventions. This is a goal of the Sutton model of evaluation as there is currently little or no evidence of evaluation being employed by this community for this purpose.

5.6.3. Performing

These should be the first metrics produced for any major training initiative. Training should be rooted in a known performance problem, if there is a problem it should have

been noticed as a deviation from the desired levels of achievement against standard measures of business performance. Typically one might expect such measures as:

- ◆ Process cycle time
- ◆ Productivity measures or defect rates
- ◆ Stock or inventory turn or replacement rates
- ◆ Conversion rate of enquiries to orders
- ◆ Sales funnel or forward order book
- ◆ Customer complaints or other quality metrics

It should be noted that these measures are all specific, they are traceable to and related to identifiable business processes, they may well form a set of 'key performance indicators' for a specific process or element of the business. The key is that the measures should be things that are currently captured and are meaningful to the business, they should routinely be used to adjudge the health of the process in question. And there should be an understanding of the contribution of the component parts in producing the overall performance measure. I would countenance against using broad based measures such as increased sales, decreased costs or increased revenue as these are too all encompassing to provide truly useful measures.

5.6.4. Transferring

Techniques and skills from the learning programme are seen to be adopted in the workplace. This is a critical dimension and it is the natural output of the learning process where individuals and teams grapple with new knowledge, skills and behaviours within their changing work environment. The result will be measurable changes in practice. The research to date suggests that the following indicators may be of value in discerning that transfer is indeed taking place. Further work is needed to identify broader indicators.

Indicators that learning transfer has occurred		
Worker	Line Manager	Broader employee base
<u>Immediately</u> <ul style="list-style-type: none"> ◆ Adapting a common language ◆ Consistent ways of doing things ◆ Standard practices ◆ Use of recommended tools and templates 	<ul style="list-style-type: none"> ◆ Encourage ◆ Provide an effective role model ◆ Coach the use of tools and techniques 	
<u>Medium term</u> <ul style="list-style-type: none"> ◆ Experiment with the techniques ◆ Try new approaches to problem solving 	<ul style="list-style-type: none"> ◆ Tolerate failure ◆ Provide a practice environment 	
<u>Longer term</u> <ul style="list-style-type: none"> ◆ Critically appraise new techniques and recommend changes to suit local conditions 	<ul style="list-style-type: none"> ◆ Promote ideas that come up from the team 	

Table 3 – Indicators that learning Transfer has occurred

5.6.5. Sharing

People show greater willingness to share knowledge and experience. This is a collective dimension that transcends and links changes in knowledge, skills, behaviours and practice. It is one of the most valued dimensions of observable change and is often a primary aim or success factor in organisational change initiatives. Sharing behaviours are easy to see in qualitative terms and can emerge in various guises along the time-line of change, but whilst it is easy to see it is less easy to quantify. Perhaps the most effective mechanisms of assessing sharing behaviour is to invoke 360 degree evaluations or some other collective mechanism that allows individuals to qualitatively assess the quantity and usefulness of each others contribution to the community of practice. Further work is needed to identify indicators relevant to the line manager.

Indicators that knowledge sharing is occurring		
Worker	Line Manager	Broader employee base
<u>Immediately</u> <ul style="list-style-type: none"> ♦ Talking about or publishing lessons learned ♦ Sharing success stories ♦ Working across boundaries ♦ Publishing and blogging 		<ul style="list-style-type: none"> ♦ Better understanding of who knows what ♦ Greater connectivity ♦ Joint problem solving
<u>Medium term</u> <ul style="list-style-type: none"> ♦ Offering to coach others ♦ Willingness to collaborate on things 		<ul style="list-style-type: none"> ♦
<u>Longer term</u> <ul style="list-style-type: none"> ♦ Accepting collective responsibility ♦ Joining together into informal communities 		<ul style="list-style-type: none"> ♦ Intranet knowledge zones

Table 4 – Indicators that knowledge Sharing has occurred

5.6.6. Transforming

People show signs of new ways of thinking and working. This is a key dimension that shows how people can move beyond the confines of the training and employ new knowledge, skills, behaviours and practice to imagine new ways of working and hence new and previously unimagined levels of performance. These sorts of indicators tend to be concentrated somewhat downstream from the training intervention and this time delay must be allowed for when constructing this element of the scorecard. Considerable further work is needed here to identify indicators that are appropriate for the line manager and to demonstrate value in the broader community.

Indicators that work is being transformed		
Worker	Line Manager	Broader employee base
<u>Immediately</u> <ul style="list-style-type: none"> ♦ Trying new things 		
<u>Medium term</u> <ul style="list-style-type: none"> ♦ Thinking through the results of actions ♦ Putting ideas into action ♦ Accepting responsibility for decision making ♦ Requiring less supervision 		
<u>Longer term</u> <ul style="list-style-type: none"> ♦ Identifying with the customer ♦ Advocating change where change is needed ♦ Taking a longer term view ♦ Acting ethically and with integrity 		

Table 5 – Indicators that work is being Transformed

5.6.7. Championing

Learners enjoy their experience, they are enthused by it and proactively recommend the experience or elements of the new practice to others beyond their immediate sphere of influence. This was a dimension of evaluation that for many managers is currently an informal surrogate for success in the absence of any other indicators. It is considered to be a clear indicator of value when people spontaneously recommend an experience to others and are keen to share stories of how they have used their new knowledge and practice to bring about change. It is even more powerful when managers outside the immediate sphere of the initiative demonstrate a desire to be associated with the initiative, copy it or in extreme cases try to claim responsibility for it. Work is needed to identify long term indicators.

Indicators that people are championing learning and new ways of working		
Worker	Line Manager	Broader employee base
<u>Immediately</u> <ul style="list-style-type: none"> ♦ Enthusiastic response ♦ Recommending the programmes to others ♦ Nomi 	<ul style="list-style-type: none"> ♦ Nominating staff for attendance ♦ Pre-scheduling onto future programmes ♦ Inclusion in annual PDP's 	<ul style="list-style-type: none"> ♦ Senior managers claiming responsibility for success ♦ Willingness to be associated with the initiative
<u>Medium term</u> <ul style="list-style-type: none"> ♦ Success stories based on new practices 	<ul style="list-style-type: none"> ♦ Case studies put forward and shared 	<ul style="list-style-type: none"> ♦ Senior managers and outside speakers eager to commit time to the programme
<u>Longer term</u> <ul style="list-style-type: none"> ♦ 		<ul style="list-style-type: none"> ♦ Attempts to emulate the programme success in other business units

Table 6 – Indicators that Championing is taking place

5.6.8. Anchoring

The organisation and the employee adopt a symbiotic approach to personal development. This was the least mentioned dimension of evaluation success and is likely to occur furthest downstream from the intervention. Indeed in extreme cases where interventions are part of a larger programme of change and the overall organisational culture is in transition it may not be possible to identify signs of anchoring at all. It is advised that this dimension of the scorecard should be given the least weight and indicators, if devised should be rooted in observation of the broader employee base. Work is needed to identify long term indicators.

Indicators that the change is becoming anchored in the culture		
Worker	Line Manager	Broader employee base
<u>Immediately</u> ♦ Personal action planning		♦ widespread knowledge of the aims of the programme
<u>Medium term</u> ♦	♦ managers using dynamic programme data in decision making on performance	♦ Senior management visibly and vocally identifying with programmes
<u>Longer term</u> ♦		♦ widespread adoption of practices beyond the training target ♦ Talent management initiatives being spawned

Table 7 – Indicators that Anchoring is taking place

5.7. The Sutton Model – Next Steps

In paragraph 4.2 I set out the three areas; purpose, process and scorecard to which I hoped to bring clarity. The three potential purposes for evaluation were set out in 4.3 as checking, steering and challenging and I subsequently refined my research challenge to be to supplement existing models in the areas of steering and challenging and to specifically target this functionality for the sponsorship of the operational community.

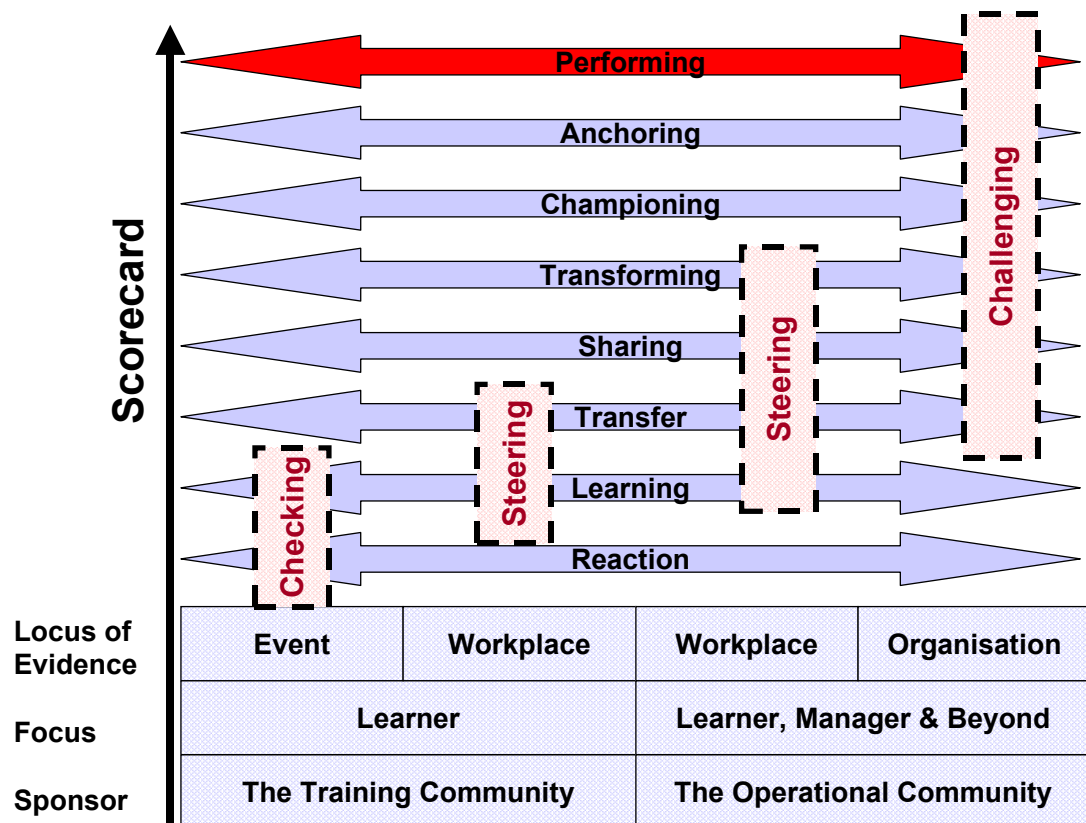


Figure 21 –Evaluation purpose, stakeholders and dimensions of value

Figure 21 above graphically demonstrates the complexity of the evaluation environment and illustrates the much needed shift in sponsor, focus and locus of attention if evaluation is to be more effectively deployed in the future.

Chapter 4.4 made the case for a life cycle approach to the process of evaluation and this was developed into a five stage model presented in 4.5. I believe that this model effectively compensates for the inadequacies of previous models and emphasises the importance of early definition of programme goals and evaluation criteria and the advisability for wide involvement in both the evaluation process and the subsequent management decision making.

Finally a much enhanced scorecard emerged from the propositions developed in chapter 3 and was presented in 4.6 as the basis for tailoring during phase 1 of the proposed 5 step Sutton model of evaluation. Whilst both the dimensions of the scorecard and the proposed indicators are grounded in the findings from the interview stage of the research this scorecard has not yet been deployed within an operational training programme. At this stage there appear to be some gaps in the range and distribution of indicators against some of the dimensions of the scorecard. It is expected that the process of testing in a live environment will both confirm the validity of the existing indicators and significantly enrich the model in terms of locus of attention and time-line.

In the next chapter we will see how the findings of the research have already been widely shared within the professional community and how they are both shaping and informing the learning consulting offering of my company.

6. Professional Impact

The research findings presented in this report represent a 'snap shot' of a still unfolding story. The life cycle model presented in Chapter 5 appears robust and is supportive of and aligned with the standard instructional design model. The dimensions of the scorecard appear to be relevant and reflective of current practice but only repeated application in a wide variety of organisational settings will tell if they are stable over time and represent an enduring set of values. The indicators of value to be used within the scorecard are still very much embryonic, they need validation and further elaboration, and this can only be achieved by extensive field trials. Such work is planned and indeed I am currently in discussion with a number of client organisations to implement the overall evaluation method as part of the design of programmes my company is currently contracted to deliver. But whilst this research will continue it lies inevitably outwith the scope of this report.

I set out to listen to the rhythm of our organisations, to discern what happens when a new learning initiative is interjected. Rather than bowing to the ever-present deity of reductionism by studying the individual reaction to learning I concentrated instead on community and sought to identify broad indicators of cultural acceptance and normative behaviours. What has emerged is not an abstract and individualised model of one persons learning experience but rather an enduring set of collective values that trace the proliferation of the cultural artefacts of learning within our organisational communities.

Now, more than ever, it appears to me to be the height of folly to base judgements of the success or failure of learning programmes upon such a coarse and inappropriate metric as financial return on investment (ROI). Our organisations are communities and we are increasingly coming to understand the central role that is played by community in driving performance and delivering benefit. Surely then it is reasonable to look for the indicators of success in the social artefacts that are created in and by our organisational communities. We are all drowning in a sea of data and information, we individually and collectively apply cognitive filters to accept what is relevant and reject what is deemed not to be. The arbiter of relevance appears to be both utility in terms of fit with the immediate task in hand and generalised fit with the norm of how we do things around here. When new knowledge and skills are deemed relevant they are transferred into practice, they are widely shared and they form the basis for new understandings and experimentation with new ways of working, thus transforming systems, processes and relationships. When a community observes success its members naturally wish to be associated with that success, they champion the ideas and further embed and build upon the success. Over time these new ways slip into organisational folklore and become just another example of the way we do things, anchoring has taken place and a

new level of performance has become the norm. This is the story of the acceptance and spread of a successful learning initiative, it is not a thought exercise or grand theory but merely a narrative of our times.

6.1. Disseminating and testing emerging propositions, and engaging in debate with the professional community

Fundamental tenets of the Grounded Theory approach are analytic induction and constant comparison (Cohen, Manion et al. 2000). This is achieved through testing propositions as they emerge and submitting alternate theories for the phenomena under investigation to wide and serious debate. Therefore an integral part of this research effort has been an attempt to share as widely as possible my thinking as it emerged. In this way I hoped to validate and inform my thinking and also to influence the state of practice in organisations. This I have done through formal and informal discussions with major clients, fellow learning professionals and academics but also through the medium of publishing in industry magazines and refereed professional journals. The following paragraphs set out the scope of this activity during the period 2004-2005.

6.1.1. Article in e-Learning Age, October 2004

At an early stage of the data collection it became apparent that organisations were taking a very narrow view of how they established their training needs. Indeed needs analysis, if performed at all, appeared to be very focused and somewhat mechanistic in approach. I determined to write an article that painted needs analysis as a much more strategic all encompassing activity and I proposed this to the editor of e-Learning Age at a breakfast meeting, he was enthused by the idea and commissioned me to write an article for the October edition. This gave me the opportunity to test within the e-Learning community the emerging propositions about the importance of environment, the need to create clear links to business metrics, the criticality of wide communication and the need for cultural anchoring. In common with many of the basic underpinning methods deployed by the training professional TNA has remained relatively unchanged for many years. The emphasis is reductionist, concentrating upon functional decomposition and the development of cascades of behavioural objectives. My concern was that in emphasising the detail it is likely that one may lose sight of the whole, the basic purpose that lay behind the perceived need for the training intervention. The TNA approach seems to me to be a prime example of an artificial artefact that employs an alien language to describe in great detail things that are only meaningful to operational managers in holistic terms. The result is that confusion reigns, training programmes serve their own ends and are seen as separate and often irrelevant to 'real work'. The article was entitled "O Reason Not the Need" and set out ten high level tips for conducting training needs analysis grouped under four headings, namely: Doing the right thing; Doing it right; Making it live and Making it pay. A reprint of the article is

included at Appendix E. The article was well received and generated some debate about the appropriate level of detail that should be included in a TNA and the relationship of the whole process to the broader design, development and evaluation of learning interventions.

This represented the start of my thinking about the need to more explicitly link the evaluation process to the standard instructional systems design model (ISDM) and this debate resulted in the formulation of the links visible in the evaluation life cycle model presented in Chapter 5.4.3 of this report.

6.1.2. Commissioned article for the Saffron 100 Advance programme, 2004

Around the same time I was approached by the commissioning editor of the Saffron Advance programme to submit an article on how learning trends might impact the development and structure of 'Blended Learning' programmes. At that stage I was completing the literature review for the research and had identified a number of strands of research on the timing and nature of learning, retention and the need for professionals to hold information in memory.

From an early stage of my literature review and review of practice I had been concerned that existing models of evaluation tended to be focused upon the individual and yet increasingly the team or group appeared to be the locus of performance. At this stage of my thinking I had not yet come to the realisation that my proposed evaluation scorecard would be built around collective behaviours and the cultural artefacts of community. I had as yet been unable to articulate the reason for my discomfort with the status quo but I had realised that important insights were being made as to the nature of learning in our organisations and that these insights were likely to exacerbate my unease. I used the opportunity to publish with Saffron as a means of testing these concerns with a community of 100 leading learning and development professionals. The resulting article, "The Sage of Paradox – seasoning your blended learning" can be found at Appendix F. I would subsequently elaborate upon and include these ideas in Chapter 2.7 of this report under the heading of three insights that could create a paradigm shift. I felt this to be important as the corporate training landscape is undergoing seismic shifts in focus and nature, it is important therefore that any proposed evaluation mechanism should be flexible and robust enough to maintain its integrity against this moving landscape.

6.1.3. Article in Learning and Development, May2005.

By late 2004 the detailed micro-analysis of the rich descriptions was complete and phenomena had been identified and grouped into themes. The five-stage life cycle model of evaluation had been developed and the central importance of sharing and

transforming behaviours were clear but as yet the dimensions of value had not been explicitly articulated. I was looking for an opportunity to share the life cycle model with the wider corporate training community and in late 2004 I shared an outline of my research findings with the editor of IT Training magazine. She was struck by the originality of the approach and asked if I would consider publishing an extract of the research findings in a new publication “Learning and Development” to be launched by her publisher in early 2005. We discussed the structure and format of the article together with a profile of the potential readership; the journal was to be targeted at senior L&D professionals in UK industry with a circulation of around 9000. The article was to be positioned in a regular section aimed at sharing emerging best practice and research in a way that working professionals could pick up and utilise. It was therefore essential that the article should be written in a style that would have a wide appeal to a generalised readership whilst offering practical tips and advice.

The resultant article is included as produced in Appendix G. The challenge I faced at this early stage was to identify the key issues and some of the propositions that were emerging from the research in a way that readers would find interesting and engaging without revealing too much of the actual method or proposed scorecard to avoid alerting industry competitors to these ideas before my company could launch and establish a robust consulting offering in the field. In the end I chose to share the life cycle approach as being an extension of existing thinking and a logical relationship to existing instructional design models, whilst only providing pointers to key emergent behaviours without revealing the dimensions of value that would subsequently inform the shape of the scorecard.

The article was warmly received by the editor and appeared in the May edition of the magazine I received complementary feedback from fellow professionals and clients but as is often the case with this type of publication no direct professional dialogue was created. However, the editor of Learning and Development asked me to join the newly created Editorial Board for the magazine to help shape the direction of future features and articles. This board was to introduce me to a wider range of fellow professionals and provide additional opportunities for feedback and validation of the model.

6.1.4. AERA 2005 Conference in Montreal

I had tested the basic five-stage evaluation model with the UK based training industry but had now expanded the model to show how it interrelated to the standard instructional systems design model (ISDM). The ISDM model has its roots and largest user base in North America so I was anxious to find an opportunity to share this development with the academic and professional community in the US. I therefore submitted a proposal for a round table session for the workplace learning special interest

group (SIG) at the 2005 American Educational Research Association (AERA) conference in Montreal, Canada. The paper was an expanded and fully referenced version of the Learning and Development article and is attached as Appendix H, at the time it was also downloadable from the Middlesex University sponsored web site of the International Centre for Learner Managed Learning, available at www.iclml.com. In addition I created a briefing pack of slides which were delivered on my behalf by Professor John Stephenson to a receptive audience of around 50 educational professionals. Several corporate contacts and academic contacts were established as a result of this presentation and considerable interest was shown in the emerging model. The slide pack is attached as Appendix I.

6.1.5. Article in Journal of Vocational Education and Training, 2005

Up to this point I had shared the emerging ideas widely within the corporate training community but had found few avenues to engage in debate with the wider world of institutionally based vocational educators. This is an important and significant professional grouping that has strong representation from the academic research community. Again my purpose was to engage in debate about the relevance and usefulness of the five-stage evaluation life cycle and to expose for professional critique the general propositions around transfer, sharing and transforming behaviours that have now been incorporated into my proposed scorecard. Together with my co-author, Professor John Stephenson, I submitted an expanded and slightly modified version of the basic research findings to the refereed journal of Vocational Education and Training (JVET). The editor and first reviewer were complimentary and accepting of the article as presented but referee two requested minor changes and further elaboration of the research method. These changes have been made and the editor has accepted the article for publication in late 2005, a copy of the final submission can be found at Appendix J.

6.1.6. Opportunity to speak at the British Learning Association Annual Conference 2006

The theory is now well developed and I have confidence in the life cycle model and in the dimensions of value that make up the scorecard. However, the shift in emphasis that I have made in moving evaluation from a pre-occupation with individual behaviour to a scorecard based upon collective behaviours and cultural artefacts is one that will need continued proselytization. With this aim in mind I continue to seek opportunities to debate and test the three planks of my evaluation model, namely; purpose, process and scorecard with the wider learning and development community. My organisation holds corporate membership of the British Learning Organisation, a professional association dedicated to the sharing of best practice within the corporate and public sector learning

community. The chairman of the association also has a position on the editorial board of the Learning and Development magazine so in my capacity on that body we have had the opportunity to discuss the direction of my research. The association holds an annual conference and one of the key topics for discussion at the next conference will be evaluation methods. My work has created some interest within the community and I have been asked to run a presentation and workshop on my approach to training evaluation at the 2006 conference in April. This is a further opportunity to engage directly with a wide range of practising learning professionals and to share and further validate the evaluation model.

6.2. Impact in my Organisation and its professional work

The evaluation model (purpose, process and scorecard) is now a fundamental building block of the consulting services offered by my company. I have trained other consultants in the approach, stressing the concepts and the underpinning theory. As we progress with the implementation of the model on client sites we will further refine the indicators for each of the dimensions of value and build a supporting data collection mechanism. Once the method reaches a level of maturity and stability it is the intention to create a consultant's handbook and a short training course in order to produce a cadre of consultants capable of deploying the approach in a wide range of circumstances.

6.2.1. Change of emphasis for consulting practice

QA has a small but highly effective learning consulting practice which delivers a wide range of learning consulting services from learning strategy review and development through competency modelling and needs analysis. Half way through 2005 I took direct control of this practice with the mandate to grow and develop the offering with the aim of engaging clients earlier in the learning cycle and creating a deeper and lasting relationship. To do this I have repositioned the offering by significantly stretching the envelope of the service with a strong emphasis on diagnostics and measurement at the front end of the service and evaluation as a necessary and strategic component of all major engagements. As part of this realignment we have created new web collateral – shown at Appendix K and sample marketing data sheets at Appendix L & M to explain the basic shape of the QA approach to evaluation. This approach is now becoming a standard component of all responses to tenders for the provision of comprehensive learning programmes.

6.2.2. Develop dynamic diagnostic tools to support the method

As we gain experience with the deployment of the scorecard it will inevitably become necessary to build and deploy automated data collection mechanisms and some form of dynamic data visualisation tool. At this stage the exact form of display has not been developed but it is likely that some form of dashboard display will be required that provides a pattern of achievement against each of the dimensions of value. I envisage a form of 'spider' diagram capable of showing the baseline performance, the target performance and a current and dynamic display of progress against each dimension. In this manner operational managers will have a timely and accurate view of the progress of learning initiatives and will have data upon which to make decisions to 'steer' the programme or indeed 'challenge' its value and baseline assumptions.

6.3. Personal Impact and Reflections upon the Value of the Method

The programme of work based learning that underpins this doctoral research has been both stimulating and illuminating. The challenge in the workplace is to provide solutions fit for purpose that incrementally build upon previous deployments. Whilst these are often imaginative and demanding they are performed always just enough, just in time. The discipline of the programme has forced me to take time to reflect upon the value of the artefacts that I produce, but more importantly to reflect upon the cognitive processes that I employ to produce them. Over the years my world view has been moulded and shaped by a range of learning experiences each of which has explored a new domain of knowledge and new ways of bringing order to chaos with new models of enquiry. Although I was well versed in techniques of qualitative research I had not previously attempted the Grounded Theory approach as I favoured the case study as a mode of enquiry. However, the nature of this domain of knowledge appeared to lend itself to the development of theory from the data and I launched myself into the method with gusto but some trepidation. The data gathering went smoothly, as did the micro-analysis and line by line coding. What I had not anticipated was the manner in which theory was to emerge from the data. At one stage I thought the analysis complete but remained uncomfortable that the insights and relationships appeared to be disjointed and limiting. It was only through the process of writing that I was to engage in further development and sense making. I had previously thought of the writing process as a means of setting down for posterity thinking that had already emerged whole from the data, I could previously not have conceived of writing as being an integral part of the theorising process itself. As I grappled with a variety of models and conceptual schema through which to convey my findings I found that the internal debate was producing new insights and new connections. I had always accepted that new knowledge was created both through socialisation and personal reflection but I had previously never been so consciously aware of engaging in the process.

This programme has produced a new understanding of how companies value learning initiatives. That understanding is already starting to impact the conduct of professional practice and has the potential to significantly enhance an organisations awareness of the progress and impact of its learning initiatives. It has produced a new line of consulting for my company and will in due course give rise to a book of case studies on the use of the method. But most importantly it has caused me to evaluate what I do and why I do it. I have once again opened my mental toolkit for inspection and found it lacking.

Learning has been an integral part of my life for most of the last 20 years and in my current role I have the privilege and honour to be entrusted with guiding and mentoring the development of some of my organisations best young professionals. It is a rich and rewarding experience to see others grow in capability and confidence it is even more rewarding to experience such growth in oneself. The dimensions of value that have emerged and now make up the Sutton Scorecard are inseparable from my own experience in completing this study and provides a roadmap for my own learning journey. This doctoral programme has provided me with new insights, new knowledge and skills and I have applied these insights to my working practice, transfer has occurred. I have shared the experience widely and hope to fundamentally transform the conduct and practice of evaluation in this country. I actively champion the method I have developed and the programme through which I have developed it and I look forward to the day when work based learning programmes such as the Middlesex DProf are anchored firmly in our organisations as a preferred method of improving understanding and performance.

It is all too easy to become complacent and tread old familiar paths, this programme has set my foot firmly on the pathway to further self discovery. I look forward with interest and wonder at where it may take me next.

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8. Appendices

8.1 Appendix A – Initial Structured Interview Plan

Semi-Structured Interview Guide for Dprof project Establishing the Value of Learning Initiatives

Ask permission to tape the interview – offer a signed and dated transcript, get address for this to be e-mailed.

Header Information

Interview Date and Time:

Name of Interviewee:

Company:

Position:

Name of Training Programme:

How long it has been running:

Approx how many students have been through the programme:

Your relationship to the Programme – Sponsor;
 Designer;
 Delegate;
 Receiving manager;
 Other (specify);

Questions about how the need for the programme was established

- Whose idea was it to establish this programme?
- What were the main drivers behind the initiative?
- Were any business performance metrics established?
- What level of sponsorship does the programme have?
- What do you think were the deciding factors in achieving sponsorship?
- What do you think was the sponsor's idea of a successful outcome?
 - How will you know if you meet the criteria for success?
 - How often do you have to report back to the sponsor?
 - What information does he/she want?
- Do you think that the sponsors view of success has changed so far during the programme?

Questions about the objectives of the programme (Implicit or explicit)

- Were a set of formal objectives generated for the programme?
 - If so, can I see a copy?
 - Were they written in behavioural format?
 - Is the programme mapped against standard competencies?
- Were you given targets that the programme had to meet?
 - What caveats if any were placed on the programme?
- Was the programme piloted?
 - If so, what were the conditions for continuation?
 - Who determined that the conditions had been met?

Questions about how the content of the programme was determined

- How was the structure and content of the programme determined?
- How was the content validated?

- How was the content mapped / related to actual business behaviours?
- Could you describe the composition of the programme in terms of percentage of time devoted to the acquisition of:
 - Knowledge
 - Skills
 - Attitudes / behaviours
- How was the split settled upon?
- Have you confirmed with the business that the programme composition is producing the desired outputs?

Questions about how candidates are identified or selected for the programme

- Which parts of the business provide the students for the programme?
- How are students selected?
 - Is there a profile of the ideal student
 - Are there any pre-requisites in terms of knowledge / experience
- Are people refused entry to the programme?
 - If so on what grounds
- Is there any formal assessment attached to the programme?
- Do you report on student's performance on the programme?
 - If so, who sees the report?
- How do you assess if the students behaviours change as a result of the programme?

Questions regarding how the students react to the programme

- What sort of feedback do you get from students?
 - Immediately?
 - After an interval of time?
- Have you made changes to the programme as a result of student feedback?
 - If so, how did you determine that the proposed change would benefit the business impact of the course?
- Do you survey past students to ascertain how valuable they have found the programme in their subsequent employment
 - If so, how did you do it
 - At what frequency - can I see the feedback

Questions about the business reaction to the programme

- What sort of feedback do you get from business managers of returning students?
 - Immediately?
 - After an interval of time?
- Have you made changes to the programme as a result of feedback from business managers?
 - How was the feedback submitted?
 - How did you determine that the proposed change was not a response to a purely local phenomena and would benefit the business as a whole?

- Do you survey managers of past students to ascertain how valuable the programme has been in producing a positive change in performance of the students in their subsequent employment
 - If so, how did you do it
 - At what frequency - can I see the feedback

Questions about the funding of the programme

- How is the programme funded?
- How often is the continued funding reviewed?
- What conditions must be satisfied to ensure continued funding?
- What business priority do you think this programme has?
 - What gives it a higher priority than other programmes?
- Under what circumstances could you see the programme being terminated?
- If the programme was faced with termination, what evidence could you produce that might save it?

Questions about how the success of the programme is determined

- What evidence do you have that this programme is making a difference in business terms?
 - What are those business measures?
 - Who monitors the measures
- Do you feel that the programme represents value for money?
 - If so, what criteria do you apply?
 - Is your view widely shared?
 - How do you know?
- Have other parts of the business expressed a belief that the programme represents good value?
 - If so, what criteria did they apply?
- If business units had to contribute the full cost of the programme for each student they sent – do you think that you would get as many students?
 - What justification do you think business units would use in approving the expenditure?
 - What reasons would the business give for not sending students?

Final wrap up questions

Thanks very much. That just about covers all the elements I wanted to explore.

Is there anything else that you consider to be vital when assessing the value of a training programme with [company name] that I have missed in my questioning?

8.2 Appendix B – Sample Interview Transcript

Interview Transcript	
Date / Time: 16 August 2004	Interviewer: Brian Sutton
Interviewee: XXXXXXXX	Company: XXXXXXXX
Position: XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
Programme Name: Programme Directors Workshop	
Running: 2 years	Number of Students: 100
Relationship to Programme: Guest Lecturer, Ex Student and receiving manager	

Thank you for seeing me today. In this particular interview I want to start by looking at your experience of the Programme Directors Workshop and then go on to talk briefly about broader learning events within XXXXXXXX. So can we start by you telling me what your experience is of the programme Directors workshop?

I have been one of XXXXXXXXXX peers and actively involved in the ESAP programme for the last 5 years and as a result of that I have been a regular contributor to the Programme directors workshop and as I set this up 12 months ago I actually did go on the programme as a partial participant on the one that was run November 2003. So I have actually seen it from both sides. I am a Finance Director and accountant by background so I have quite a lot of professional involvement of continuing professional education in accountancy in XXXXXXX in the UK. So it's been part of a journey for me.

If we look specifically at the programme directors workshop, why did that programme come about are you familiar with that?

Yes, for me we had a lot of knowledge of what I would describe as single project "project management". But increasingly projects were crossing domains where you couldn't use the carrot and stick line management approach to getting things done, you did have to get other people to support you, you did need other peoples help to deliver stuff.

For example in the ESAP project in the UK you had 20 sub-projects that had to be deliver to make it work on day one. These ranged from specifications of products through to changing the method of recording hours in the factory, so we had a huge range of things that had to be delivered in addition to just the project and for me the idea of having the programme directors workshop is to help you to understand what you need to do at the beginning rather than just define out the project.

Getting the sponsors on board getting the key decision makers with you, understanding what their stakes are in this project are and where you are going to need to push and pull the rest of the project, these are things you may not be able to do on your own.

This is the key, XXXXXXXX does not have a particularly good history of delivering big projects in a successful way.

Can I just touch on that, you implied that there were two reasons for the programme, one is that there was a perception that you could be better at

delivering big projects and secondly I sensed that you feel that you were moving into large multidisciplinary programmes and that this was a new knowledge area for XXXXXXXX. Which of these do you think was the major reason for the programme?

I think its more the latter, although the two go hand in hand. We are taking on these bigger projects that cross country borders, functional borders and they just need a different set of skills to what we were currently working with and that is going to be increasingly so.

If I have a worry it is that XXXXXXXX is structured at its most senior levels in a way that it can't deal with those particular issues very easily. The programmes will run but they won't necessarily fit into our existing decision making structures, which are very regional.

If our sense is that we are trying to move into a new knowledge space and create new skills. How are we going to know as XXXXXXXX managers that we have been successful in doing that and that the programme is being successful in producing the changes that we want?

Firstly that the projects actually start delivering, a lot of these projects have a history of either non delivery or being very late, very over budget etc etc. So the step forward would be that they get delivered more or less when we say they are going to be delivered and on cost.

That in itself I think would send a huge signal because not only do you need to train people but you need to get the best people on these projects as well and when you see a number of these projects not succeeding the younger people say well I am not joining that programme.

Going slightly off script I would point out that the number of really big programmes that XXXXXXXX is running at any one time is probably three or four so the other great things that this does is to "Blood" some of the new guys and hence produce the next generation of project directors.

I think Graham has done it very well, he is certainly world class in XXXXXXXX in terms of what he has done, but the hope is that the programme will produce people who are better than me and possibly better than Graham as well because they will have been immersed in it. But we do need to keep it going.

The other good thing for me is XXXXXXXX setting up these Academies, because you can afford to have half a dozen people in one place pulling best practice together and widely disseminating it.

The beauty is that we have them all closely located Finance, IT, HR and Marketing Academies are all in the UK and this means that they should be able to sit together and talk about our approach to common issues and perhaps the most important common issue is the big change projects.

What I am sensing is that we started talking about a programme and now we are talking about the ongoing effects of the programme and the implications of that on resourceing and growing talent. So how do you see the role of learning initiatives in that larger context of growing and developing competence and talent because courses tend to be seen as events rather than a part of a process?

I think the younger people are more curious than I was, I finished my accountancy exams and as far as I was concerned that was it for me for a little while, I think the new generation of managers are more interested in continuous learning.

Now in some cases like accountancy that is being forced on everybody, for professional indemnity reasons, but I don't think that's a bad thing because it forces you into a cycle of assessing your strengths and weaknesses, which hopefully everyone did before, but also of assessing where are you and where is the industry and where is my company going so that I have a better understanding of my profession and I think there is going to be much more of a suck of training to the employee rather than just stand up pieces of learning being chucked at people when we think there is a need for it.

Technology will allow you to be far more bespoke in the future it not just a whole week in the UK, you may well be able to do this in completely different ways. The challenge for me is finding ways in which you can take quality time out of work and still find ways of using the distance learning time approach. You could easily take maybe two of those five days on the PDW and allow them to do it over an elapsed time of a couple of weeks but the problem is giving them a break from the pressure of having other things to do - we as a business have not found a way of doing that I don't think.

You said that you sat in as a participant as well as working on the programme, how did you find the experience of that particular programme. Was there anything unique or different that made it stand out?

Yes I think it's the only week like it, there is nothing else quite like it. The thing I learned was the front-end process of setting up the stakeholder process, helping you actually deal with difficult stakeholders, how do you win them around.

The other thing I found was the willingness of everyone else, many of them much younger than me, the willingness to tackle some of these issues. They weren't too difficult to be dealt with and people were prepared to actually tackle some of them.

As I understand things there is a strong emphasis on that programme of the honest sharing of experience from practitioners both within and from outside XXXXXXXX. How did that compare with other courses?

XXXXXXXXXX was once described to me as a company with an office on every street corner glued together and its always been the people who have been the glue, so whenever I have been on a course or programme like this a big part of the value has been the networking that has allowed you to phone somebody else up when you have a problem to get a second opinion or borrow resource so in that respect it build on other programmes that have been around a long time so in that sense its not new.

Graham has done some nice things like providing contact details for everyone on the course and that does help with getting people to stay in contact.

By contrast to many of the people on the course you are somewhat more senior but did you continue to network with those people?

Yes.

And do you think that has a result of your attendance on the course your own personal practice has changed?

Yes there are two or three things that. In some ways because I have attended the programme a number of time it may be difficult to separate them from the course but there things that I have picked up from Graham that have definitely changed my practice.

One of them was the idea of having programme health checks, which can be done very easily and quite cheaply but it is the window on the world from the outside coming in and looking at it for a short period of time, just addressing where you are. Historically we have never done that very well and I find that really useful to get an outsider to take a look at it, for example when you have done your risk review someone saying well I don't like this, that is ok, you seem to have missed this, you've got that – I found that very, very useful I would not have dreamt of doing something like that if I hadn't come through this sort of process.

Have you since sent any of your staff on the programme?

Yes, Michelle, who is my number 2 has been on the last one.

One of the problems is that I think we are in danger of over supply of places so you can get some very junior people going on the programme and I don't think its the right thing to do. They learn but they do not engage, this year we ran two in the summer and I think we should scale that back because its important that you get a balance of the guys that are about to start or are engaged in some of these big programmes with the guys who are the next generation, maybe two jobs away from being involved in this way.

The last one had lots of IT people on it of a relatively junior middle management level and they tended to get into a mind set of its all too difficult. When Graham and I were doing our session they would say things like you need a business case before I can go to my boss and convince him. Well the business case should be obvious to you – you may not have an alternative and by the time you have refined all the numbers it may be too late and that is a little difficult for some of these young managers. Its more a case of having the vision and providing the direction.

And that is why I would be careful if I was Graham and Daryl to make sure we don't over supply the number of places.

And did Michelle find the programme valuable?

Yes she did, and she was very busy so she was under pressure from me to go because it would have been very easy to pull out and not go.

And have you noticed changes in the way she goes about things.

Yes to be fair since she has been back it has been madness because in three weeks we start moving out of this building so we are down to a lot of detail but

we then get a second phase when we are planning to come back in here and I am hopeful that we will get the real value then.

Between the two of us we tend to share out some of the stakeholder duties and earlier this week when I wasn't around she just marched into the Chairman's office and just sorted something out, which normally she would have left. So the big benefit we will probably see when we get a bit of space when we move next door.

Can I just broaden the discussion a little bit onto just general training and learning initiatives? How do you identify learning opportunities for your people?

Basically business driver is the one thing that I am looking for, having trained IT people and accountants for a long time, generally XXXXXXXX is very good at training those people at the professional skills part of it and making sure there is continuous learning so what I try to do is determine what other things we need for people to be good business managers as well.

There have then been things that are in the public domain that we may not have started for instance one day per year someone goes out to a non-XXXXXXX course in their professional area so that they don't necessarily get it sanitised with the XXXXXXXX approach.

To up skill the quality of project management skills which I think generally is woefully inadequate and I think that every manager in the business should at a minimum be able to project manage then depending upon what the business priorities are at that particular time.

If the business is going through a period where its doing some business development then finding some way to train the functional teams in that area – so for instance it could be that we are structuring our sales team from calling direct to key accounts it would be absolutely necessary to make sure that everyone understood what it is we are trying to achieve and then to help them think through the consequences of that on their own area and not having them ticking boxes working out their own process.

You seem to have a fairly rigorous approach to identifying training needs, how do you ensure after the event that the training you have invested in has produced the desired impact?

That's a really good challenge. The only ways I have found are first anecdotal evidence, did they enjoy it, did they feel they got something out of it. Just through having a systematic questionnaire at the end of it.

What I have never really tried to do is go beyond that and if we have run subsequent courses and I have been fairly actively involved in running most of the finance courses in the UK, what we do is look at the scoring of the different subjects and we have data going back several years.

For instance we have one guy who does the business case, he's from Columbia and is really brilliant but what we are looking for is the next guy to take over that module and we are struggling like hell with it our challenge is to make sure that you are delivering content that people are fired up by and are learning from but also that you can see where it is working and you can do something about it.

Those are fairly hard measures and they are presumably based upon end of course surveys, but you mentioned earlier that your practice had changed as a result of learning and that you have seen the changing practice of other people so if you invest in training for some of your people can you give me an idea of two or three things that you might look to see happening in the workplace that would give you confidence that the initiative had been worthwhile?

I would certainly be looking for them to have picked what they need to work on and build those things into their work planning process.

Now what you've opened up is the need to make the review process not stop after the course finishes so whether it is qualitative or quantitative we need to get people to continue to think about these things after they have left the course and I know when I have been on a third party course and there were two or three things that I thought I should be doing I used to get a polite reminder about how I had got on with them just to stimulate me, and I think that is good practice that I don't think we have.

I would be looking for them to incorporate that into their work planning process because it may be that it needs me to change my behaviour to allow them to do it.

Can you just elaborate upon that a little?

Well if for example people haven't got confidence about their ability in a certain area, there are two ways to do it I may assume that I need to get closer to them but sometimes you need to get further away from them to let them make mistakes.

One of the most frustrating things in life is watching people make mistakes when they don't know you are watching them but if you step in there and sort it out for them then they are not going to learn from it – so its kind of difficult balance so there are a lot of time when you need to give them space, nudge them, coach them and watch them move into a space where you hadn't planned on them going.

So what I am getting from you there is that normally when we think in terms of behavioural change from training we are normally looking for that in what you might call the target of the training, but what you are saying is that the very fact that you too have had to moderate your behaviours is telling you that the training has had some effect

Certainly it could do and what I am looking for is a situation where I can rely on that person to do the kind of bigger role than they were doing before which in turn allows me to move on and improve what I am doing so that I don't have to focus as much time on their activity.

Inevitably with any programme there are times when the thing is under resourced and you know you need to put more time into it so for me the pay back is that having done the training they are more capable of independent action than before they were trained.

Just a couple of final things. One of the indicators if you like that people feel a course is valuable is if they are prepared to invest their own money in it.

Now I understand that in XXXXXXXXX you have adopted a process of self-nomination and devolved budgeting, so with programmes such as the PDW you have to pay for your own people to attend?

That's always been the case in that you have always had to pay, but self-nomination is new. We are certainly moving to a method where the onus is on the individual to help define what the programmes they attend are. What I would say is that the team leaders need to put an overlay of the business priorities on the plan because there is no point somebody massively trying to improve their Excel skills for instance if there are more important business priorities. Its great that people have a say in determining their development needs but there has to be a feedback loop that links there needs to business needs.

And does the financial element have an impact on your decision making about who gets what training?

All people should go through some form of training every year, that doesn't mean everyone has to go to Harvard every year, but you cant stop people attending training because they become disenfranchised. I believe that everyone is capable of improving its just a question of how much time and effort you have to make that improvement. To me it doesn't matter whether you overspend or under spend the budget it needs to be weighed against the other things you were going to do so it may be that at a particular time it is wise to invest heavily in training so that you can reap the benefit of that immediately afterwards and conversely sometimes it may make business sense to stop all training for a while. It is a difficult balance because it is very easy to chop training when the business is perhaps doing very well so I think it is important that programmes like the PDW are centrally organised so that you get the best quality of trainers.

Just to round out then. Looking forward into the future the next 18 months and beyond, if you had a magic wand and you could make one change about the way that XXXXXXXXX look at and view learning opportunities, if you could make one change what would it be?

I think it would be more to be the hub of a web. Over the last 4 or 5 years we have been unloading all sorts of initiatives on people and they need a bit of a breather from all of that. So I would like to move away from initiatives and move to more of a provider of a network or where you can find something. So you don't have to search everywhere if you have a learning need. I think the company currently assumes that we know what everyone needs. We are not like the typical American company where everyone does what is done at the headquarters. We are the other way around we are a company that was designed on every street corner, it has been said that XXXXXXXXX doesn't know what it knows and that is absolutely true, if only we knew what great nuggets of information we have around the business it would be fantastic. We are getting there.

Thanks, I think I have been just about everywhere I wanted to go with the interview but is there anything you would like to add in general terms about how you understand the value of initiatives, any initiatives whether it be training learning or anything else. The organisation indulges in initiatives and how do you know that what you have spent your money on has produced the benefit that you expected and desired?

Very good question. For me post evaluation in any form is the best way and there is a tendency to shy away from doing that whether it be training or some of our other big programmes, I think we just need to be a bit more structured about doing that so that we don't keep reinventing the wheel.

So if we had a more systematic review process. We used to have a fantastic system where we reviewed big capital projects 5 years after they were completed and actually capital projects of that size generally don't appear any more because the business world has changed quite a lot so the equivalent now is programmes. These reviews are not done very often now and when they are you tend to get a complete whitewash that may be great for the guys at the very top but it doesn't get stuff out on the table that helps you get better at design the next one.

So that's more about understanding the mistakes and successes along the way and then finding some rigorous way to share those lessons?

Exactly, and to do it in an open way because its very easy not to want to admit some of the things you have done wrong.

Thank you XXXXX that has been really helpful.

8.3 Appendix C – Sample of coded transcript

Q #	R #	Interview question	Question Response	Theme 1	Theme 2	Theme 3
Int7-q1		Could you tell me a little bit about the programme and what it was that made you determine that you needed a programme of this nature?	<p>The main staff we have done is the systems analysis and design course. The main reason is that a few years ago we started a graduate recruitment programme we brought in graduates into the IT department and brought them up to speed with some training on how to write code.</p> <p>They came in straight on the shop floor and now after a couple of years we are at the point where we want to widen their skills and get them doing other things.</p> <p>We decided that we would like to see some of them go into the Business Analysis side of the house. In order for them to be able to do that we needed to give them formalised skills in that area and that was why we decided to put this programme together.</p>	skills development	career development	
Int7-q2		When you decided that you needed the course did you determine any success criteria? Anything that would confirm that the training had been successful?		skills development		
	Int7-q2-r1		In terms of measurables probably not.	no agreed measures of success		
	Int7-q2-r2		In terms of how the analysts are perceived when they go out and do their job, both by the user business community and the other people in the department, then clearly we use that as a point of reference and get peoples feedback as to how they perform after the course.	how they do their job	others perception of how they do their job	professionalism
	Int7-q2-r3		The good feedback that we have had give us confidence that we have done something useful and worthwhile – but we did not have specific measures such as they can now get a handle on a system in 10 days instead of 15, no we don't have those sorts of benchmarks.	good feedback from the business customers	no direct business measures	
Int7-q3		What sort of feedback are you getting?	<p>Very positive really. They are quite formal and structured in the way they now talk to the business and the way they document, walk through and present things to the business.</p> <p>So the business are now used to seeing our analysts with a set way of talking to them like we have this process and this process and a decision here and what is your business rule.</p> <p>So everyone is using a common language and the business are now used to that.</p>	common practices	common practices	common vocabulary
	Int7-q3-r1			common practices		
	Int7-q3-r2			common practices	common vocabulary	
	Int7-q3-r3			common vocabulary		

Int7-q3-r4	As we get more and more exposure it just improves the quality of the interaction between the business and the analysts.	improved communication	better quality results
Int7-q4	And what about yourself and your fellow managers, what sort of things are you observing about the way these people are doing their jobs?		
Int7-q4-r1	It appears to have brought them all to a common standard in the language of analysis in terms of what are the processes, what are the rules, what are the specifications, they now understand there is no ambiguity about what anybody means.	common practices	improved understanding
Int7-q4-r2	They know what they should be doing. I sit on review bodies where they bring their designs along and I can see their design and review it quite quickly and its obvious where the problems are of they have not stuck to what they did on the course.	changed behaviours	method brings confidence
Int7-q4-r3	So in terms of what we are seeing is a common language and a common levelling to the designs.	common vocabulary	consistency of output
Int7-q4-r4	Historically we might have had one team that worked in a very detailed fashion and another team that worked on the back of an envelope — we now have a much more levelled capability.	consistency of output	
Int7-q5	What about more general behavioural traits, is there anything that is observable there?		
Int7-q5-r1	I suppose just the professionalism of their approach. A realisation that analysis is hard work and needs to be thorough and laid down properly. Not that they weren't before but its just that now they have more structure and with that comes an understanding of how they present themselves. They know they need to prepare, they know they need to know what they are talking about, they look the part.	professionalism	
Int7-q5-r2		well prepared	professional approach
Int7-q5-r3		well prepared	well equipped self confident
Int7-q6	Do you follow up with the individuals themselves and talk about there experience on the course?		
Int7-q6-r1	Yes we have a variety of people who go on the course so we debrief everyone who has been on it. We have some really deep technicians who feel that they don't want to go and speak to people and do presentations and do the softer side of things so we send them on the course and occasionally we have had to press gang people onto the course.	individual debrief	training as a means of modifying behaviour personal development
Int7-q6-r2			
Int7-q6-r3	Not surprisingly some of the people who did not want to do it turned out to have really loved it and discovered that they can do different things.	moves people out of their comfort zone	

Int7-q6-r4	Equally some of the people you would have expected to be naturals for the course turned out not to take to it. So you do see some surprising results.	not all complete the journey
Int7-q7	Can you cast your mind back to a particular instance of someone who was really reluctant but turned out to be a resounding success?	
Int7-q7-r1	There is someone who really took considerable persuasion to go on the course, she was adamant that he wished to maintain her deep technical skills.	comfortable so why move
Int7-q7-r2	I spent a long time persuading him to go on the course explaining that it would really be of value to him.	need confidence to try need motivation to try
Int7-q7-r3	He went on the course, really enjoyed it, came back and within 3 months when I was appraising him he said look I never want to code again.	change of beliefs success breeds success
Int7-q7-r4	He is now a senior analysts and has really never looked back.	changed behaviours
Int7-q8	What are the two or three things that you would say have transformed in the way that that particular person now reacts and interacts with people?	
Int7-q8-r1	How he approaches people. He runs things in the way he has been taught work for him and he uses them.	approach skills into practice
Int7-q8-r2	His mindset really has developed in that he has found that this type of work can give him the intellectual challenge that he needed.	mindset change challenge
Int7-q9	If I can just broaden the discussion a little and think about training and development programmes in general within xxxxxxxx. As a manager what sort of things give you confidence that when you have sent someone away on training you have spent the companies money wisely?	
Int7-q9-r1	There are two things really. The feedback you get about the course in terms of peoples perceptions of its value and relevance.	reation
Int7-q9-r2	We have had people where we have pulled them off a course because it obviously just isn't working for them. But normally I think you see the value 3, 6 or 9 months down the line when you see the things that you expected them to be taught being picked up and put into practice. You can't see that on day 1.	takes time to change behaviour no quick fixes

Int7-q8-r3	We just got a group of people who have come back from a three week course today. I don't expect to see them using very much of that course immediately. It comes and builds up over time, as they get used to the stuff and become practitioners.	need time to adapt practices to environment	proficiency build with time	levels of confidence
Int7-q8-r4	So I expect to see them doing their job differently in due course but I am not expecting instant changes.	performance changes in the long run		
Int7-q10	In order for them to be able to effect that change over a period of time is there anything else that needs to be in place or are we just looking at the passage of time and things will happen?			
Int7-q10-r1	I think what they need is to get the support from us on the management team that what they have learned is the right way of doing things and that it is the working practice that we are adopting and that we will support them in adopting and applying that.	line management must be supportive	practices must fit the culture	must be seen to be the right thing
Int7-q11	I think that what I am hearing is that they need effective role models around them that are doing the things that they have been taught?			
Int7-q11-r1	Yes far more eloquently put than I could have hoped to say. I think what they need to see more than anything is other people using the techniques so that they are in no doubt that this is the way we do things around here.	models of behaviour	practices must fit with culture	
Int7-q11-r2	Quite often people go on a course and say yes we learned that but we don't do it that way back at the shop. It's that that we are trying to overcome – you go on the course because we need you to be able to do it like this.	training linked to job needs		
Int7-q11-r3	We fully accept that they won't be fully up to speed on day one but we will support them as they learn and make mistakes.	line management support	room to make mistakes	performance improves with time
Int7-q14	I am conscious that I have taken around 15 minutes of your time. Is there anything else that you would like to add?			
Int7-q14-r1	I would say that doing this over the last two years has made one of the biggest changes to how we do things we have brought a large group of people up to speed on new ways of working and have changed the culture.	changed behaviour	new ways of working	changed the culture
Int7-q14-r2	With any programme of this size its not just about training the people who go on the course it also affects all those who are not part of the training programme.	the environment must change	non-trainees also need attention	

You said something very interesting there so forgive me if I pursue this a little further. Generally when we talk about evaluating training we think about following up the students but you have just very clearly said that it also about environment and the people around them. So I think what I am hearing is that you think the reason that this training has been so effective is not just that we have trained the individuals but that other people in the receiving environment have also changed?

Int7-q12

standard practices need to be modified

match training to how we do things around here

Yes, we have had to change our techniques and practices in house to adapt internally what we do to match what people do on the course. For example I am not a practitioner but I have to put the infrastructure and the control mechanisms around what they are doing. I need to shape the best practice and that isn't just me it is other areas as well. For instance the people in the business who have to review their designs have had to learn to read what they are doing and understand that – so its not just the people on the course its all the people they work with and interact with.

Int7-q12-r1

Int7-q12-r2

Int7-q12-r3

impact of training is far reaching

I think what you are saying is that to evaluate the success of a course its no use just looking for changes in the behaviour of the people who are trained but you also need to see changes in the environment as well?

Int7-q13

behavioural change process

standard practices modified

performance = good people in good processes

impact beyond course members

Yes this is quite a big thing we have done really, you need to see the overall effect rather than I have 5 well trained analysts here. I have analysts who work well within the department and I have streamlined our processes and this combination makes the whole thing better and brings value to the company. And even those people who haven't been on the course also understand what's going on.

Int7-q13-r1

Int7-q13-r2

Int7-q13-r3

8.4 Appendix D – Sample of an interview transcript with thematic coding

Question Response	Theme code	Theme 1	Theme 2	Theme 3
Where I have a concern is measuring things post project. Yes I think we do do it in some cases but I think we actually only look at certain figures, in other words if we say for instance “Turnover is going to increase by 1%” How do you know whether the 1% was generated by your project or some other activities? If you don’t get it is because the competition did something else?	A	broad measures of performance	No benefits logic	
So I don’t think we have the rigour in place to determine how we are going to measure things and to ensure that we do measure things correctly.	A	no benefits logic	no post implementation review	
So getting back to your question, I don’t think that today we have the rigour in place to measure the success of the programme other than to say what we do get is a lot of people recommending the programme to colleagues because they have found the programme useful is one.	A	lack of hard measures	personal recommendation	
In terms of measurables probably not.	A	no agreed measures of success		
The good feedback that we have had give us confidence that we have done something useful and worthwhile – but we did not have specific measures such as they can now get a handle on a system in 10 days instead of 15, no we don’t have those sorts of benchmarks.	A	good feedback from the business customers	no direct business measures	
That’s one thing that we are trying to do currently. We had asked those types of questions to the executive team and we never really got a solid answer on what they were looking for. They knew what they wanted but we never got our finger on the pulse of level 4 outcomes.	A	no measures of success set	no view of cause and effect relationship	post hoc review
The way we measure success is purely revenue driven.	A	Normal measures are financial		
There are no existing measure like number of executives reached, number of meetings, margins – we didn’t get a sophisticated as that with the sales force so it is more difficult to assess what the economic impact is.	A	No tracking performed	impact unknown	

We have also had graduates of the programme recommend other team members to attend the next programme because they felt it important that the other team members benefit from the same experience. What we have had is people who are senior who present on the programme recommending some of their subordinates to attend.	B	personal recommendation	personal satisfaction
		personal recommendation	
So right now we are trying to go through a Kirkpatrick level 3 approach and identify what are the skills applied and try to get anecdotal information about certain contracts that have been won where we think we could attribute any degree of the success to the training programme. We have had a few success stories already. A few live deals have been used as case study material in a group environment during the training, students had an opportunity to review the material and punch holes through it and helped in devising a future strategy. And then some 4 months later we have found that these same deals have been successfully completed. I'm hoping that she will come back more capable of doing her job much more independently of me. That she will have much more confidence in her project management and programme skills.	C	post hoc look at behaviours	anecdotal evidence success stories
		success stories using experience to guide action	exemplar case studies experience in class learning from learning led to further success
So my hope is that I can say to her look this is what I want you to achieve and then with the minimum of hands on she just goes and does it. The other one is a guy who is in my technical team downstairs. 2005 is going to be a big year of change on the technical side so for example he is going to be leading our bit of the ITIL project for the corporate centre. So we have ITIL as a programme and my hope is that he will come back with the skills that will allow him to run that programme with the minimum of hands on from me. I want to empower people to do their job. Obviously I want to keep the overall view of how they are doing but I want to give them much more autonomy about what they do and how they do it. And I am sure this course will help them.	D	acquire work related skills	more able to work independently more confidence in own ability
		brief what - rather than how	less direct supervision
	D	more able to work independently	less direct supervision
		increase autonomy	delegate decision making

<p>In terms of how the analysts are perceived when they go out and do their job, both by the user business community and the other people in the department, then clearly we use that as a point of reference and get peoples feedback as to how they perform after the course.</p>	D	<p>how they do their job</p> <p>others perception of how they do their job</p> <p>professionalism</p>
<p>Well I think you could say that. But better yet you could say that we get an opportunity to look at some sales opportunities that are not completed, maybe halfway through the sales process and apply the techniques and skills taught through the programme and as a result improving the rate of success.</p>	D	<p>apply learning to live problems</p> <p>group problem solving</p> <p>application of collective wisdom</p>
<p>I took over in the mid 90's a high profile major programme that was utterly out control so out of control that nobody realised and my challenge was to turn it around and deliver as much as was possible from it.</p>	observable failure	
<p>I think there were also other examples of programmes in Unilever that had not gone satisfactorily.</p>	anecdotal evidence	
<p>No. I was insistent that the programme should be smaller rather than larger. So we have had 20 people on each run, so that it would encourage debate and an atmosphere of openness so we can talk of failure as well as success.</p>	sharing	discussion
<p>We also decided that it should not be run at the Unilever international management training centre because we wanted it to be something that was more open than some of the typical Unilever courses.</p>	openness	break culture
<p>So there were really requirements and agreement on style but not numeric agreements on the number of people who would be put through.</p> <p>Ok, let me answer that in this way. I think Unilever is very good at putting together a business case. So if you look at our proposals we raise a project / programme proposal. We do a lot of work in terms of calculating financial benefits, the implications of cash flow, return on investment – I have been involved in a number of these and there is a lot of rigour around that.</p>	business case created	

We've had people talking about, not so much utilisation of the skills and techniques, but talking about going back and thinking differently about how they would approach a programme.

Now that doesn't give you what I would call a business case but it is one of these gut feels that says with all of those comments and given the high rating of the programme – I don't believe people come on it and have a jolly, I think people go back and say that was really useful.

Whether they go back and utilise 80% or only 10% I don't think its as high as 80% but I know its not as low as 10% somewhere between the two and they find that it is useful.

Yes I thought it was one of the best courses I have been on in a long while. I was really enthused afterwards.

Ok, well one is the lady that will be leading my help desk for me. We are merging three help desks into one and the help desk will also be key to operations.

changed thinking

changed practice

reaction -good

enthused by the experience

pedagogy

O reason not the need

Ten tips for Training
Needs Analysis

By Brian Sutton



view, instead advocating that a little less detail and a little more emphasis on the big picture will produce better end results. This change in emphasis will also transform the activity from being one that is only of interest to backroom training staff to one that can capture the imagination of even the most senior operational managers.

To be effective a TNA needs to be much more than a simple task analysis. When we conduct a TNA we are interested in establishing key business information centred around two strings of relationships; both of which lead to enhanced

widely accepted view of Training Needs Analysis (TNA) is that it is all about process, that it is detail oriented and that to do it properly takes an eternity and produces tons of paper. I challenge this

business performance.

$(Knowledge + Skills) \times Attitude = Performance$
 $(Process + People) \times Environment = Performance$

The finest, most elegantly designed training programme (traditional, “e” or blended) will FAIL if it is catapulted into an unreceptive environment or if the prevailing workplace attitudes are not congruent with its ultimate aims. To create the optimum impact, any initiative to improve performance must be balanced and all encompassing; it must prepare the environment and it must be cognisant of the way that people approach the acquisition of skills and knowledge and how they relate to each other and their working environment.

The training programme is just part of the performance solution. Trainers cannot abrogate responsibility for the ultimate impact of their programmes nor should they fall back on that old standby, hope. Design is the answer, holistic design rooted in a deep understanding of the real drivers of

business performance.

The following 10 tips are designed to help you keep focused on the bigger picture. The emphasis is on breadth of vision not microscopic analysis. Adherence to this framework will produce programmes that truly make a difference.

Doing the right thing

1. Not all problems are training problems.

Start at the sharp end: what is the source of under performance in business terms? Why is it deemed to be inadequate? How will you recognise if/when it improves? Is there a consensus on the two or three things that are getting in the way of attaining the desired performance?

Once you know what you are aiming at, start with the job itself. Is there a new way of doing it? Can it be done in a fundamentally different way? Do the procedures / rules need changing? Do the



management / organisational structures support the required performance? Is the recognition and reward system congruent with the behaviours needed? Are the governance structures appropriate? Is decision making in the right place at the right level? Only when you're sure the job design is not causing the performance issue should you turn to people-related solutions. Now you need to understand what knowledge, skills and attitudes drive performance and how these interplay with the systems and the environment.

2. Learning gaps are not the same as training gaps.

Once a gap in skill or knowledge has been identified there remain myriad ways of bridging that gap, only a few of which fit the description of a traditional training course. What is the knowledge and skill level of your people at the moment? Is this a new domain or an incremental build upon existing capabilities? When do they need the new abilities? How can they best acquire them – all in one go or on an as needed basis?

Stop thinking about training as something you do to people and start thinking about enabling them to learn and practice the knowledge and skills that are needed to produce the required performance. This may involve training but could equally be a matter of providing access to information resources, building communities of practice, enabling action learning sets or study groups, providing internal or external mentoring or coaching, enabling on-demand webcasts, 'lunch and learn' sessions, lessons learned data bases etc. The aim should always be to design structures that promote learning.

3. Attitude is a multiplier and environment is often an inhibitor.

Good people with the right attitude will always find a way to perform, even when working with inadequate tools within broken processes. Conversely, highly intelligent and skilled people working with a superb process can produce appalling results if they don't understand what is important and are faced with a management environment that is debilitating. Work to identify the inhibitors or constraints in the environment that may encourage or discourage people from performing. Build an understanding of the attitudes and behaviours that delight customers and promote ownership of problem solving. Build support structures for these behaviours into the learning design. Create role models that live and breathe winning behaviour and challenge your employees to be all they can be.

Doing it right

4. Breadth is more critical than depth.

Analysis is both fun and contagious. It has a therapeutic effect and once started the tendency is to dive deeper into ever increasing detail. Detail has its place, but this isn't it. The primary concern should be to produce an integrated view of the whole learning design and its fit to the organisation. Indeed, in terms of this article you should perform all ten steps and then come back to add detail as necessary to support the development of a consistent solution. Never develop a new level of detail until you have consensus on the previous level, constantly refer back to the context to ensure that detail is supportive of the design. It is very difficult to walk a straight line when staring at your feet: this is the trap of analysis.

you can lose your way in the detail. Paint a convincing picture of the desired end point and keep focused upon it.

5. Speak the same language, grounded in meaningful business metrics.

Learning is the first step on the way to performing and the acid test of success is always a measure of performance improvement. Sadly trainers and operational managers tend to speak different languages. One talks in terms of reaction scores, test results and competency development – the other is interested in widgets / hour, inventory turn ratios and revenue generation. One of the primary reasons for training is to improve performance. Training initiatives should therefore be stated using business language, couched in terms of meaningful business metrics and have their success measured in terms of incremental changes in those stated business metrics.

6. Most learning happens informally, leverage it.

We know that training initiatives, regardless of their quality, only represent the first step on the journey to proficiency. Most of the real learning that polishes and perfects performance will take place on the job, yet generally this element is left to chance. We should include in our learning design structures to support on-the-job learning. We should create space for this to happen and mechanisms for recognising when it has. We should also be aware that over 70 per cent of useful learning is picked up informally, around the coffee machine; whilst, by definition, you cannot structure informal learning, you can take steps to help it flourish or indeed to inhibit it. People can't help learning, they do it all the time, it is as



natural as breathing in and out – if you leave the informal learning process to establish its own agenda there is an excellent chance that the result will be counter-productive. Don't fight against the natural tendencies of the organisation; instead build them into your learning design.

Making it live

7. Having established the need, help people feel it.

The output of most TNAs is indecipherable to all but those who have been inducted into the mysteries of the training profession and generally hidden away in some musty repository. When used it is only within the bowels of the training design process and often by the time solutions are launched the link to performance has become tenuous or lost. The reality is that in order to make a difference, the TNA findings must be presented in a way that the business understands and must be communicated constantly and widely to all involved. Communication must go further than an explanation of the logic of intervention and engage with the hearts of the subjects. People need to feel the pain of poor performance; they need an image of a better future and the personal confidence that they can complete the required journey. But, most importantly, the pain must be the same for all, the image must be consistent and the journey, though different for each individual, should have the same destination. So having established a need, don't keep it to yourself.

8. Build the whole solution.

Learning should not be viewed as an activity that happens independently of work. To be effective at

enhancing performance the learning must sit comfortably with, and in, the working environment. To achieve maximum benefit it is often necessary to effect changes in the receiving environment – this may involve changes to procedures, rules or norms of behaviour. It could require changes in decision-making levels or authorities; it may require different styles of relationships and/or more freedom and autonomy. What is sure is that just as a gardener would not try to plant seeds without first preparing the soil; managers should not just parachute training programmes into an unchanged environment and expect them to flourish. For too long we have built 40 per cent to 50 per cent of the solution and left the rest to chance. With the pressure on value for money from our training budget we must design comprehensive solutions that leave nothing to chance.

Making it Pay

9. Create connections.

Increasingly our workforces find themselves swamped with improvement initiatives, priorities and measurements; they typically have difficulty understanding how to prioritise and they are seldom provided with guidance on how the various activities fit together or complement each other. Under such circumstances chaos tends to reign supreme. It is inevitable that multiple initiatives will be running concurrently so the trick is to find synergies between the various ideas. Show how knowledge from one area can be reused in another, demonstrate how skills acquired along one dimension complement actions needed in another, provide tangible examples

of how attitudes necessary for success in one endeavour complement and build upon those associated with other winning behaviours.

10. Anchor in a recognition and reward system.

It is a fact of life that measurement tends to create behaviour rather than reflect it. We must therefore expect to get the behaviours that we appear to value. Any performance improvement will only be transitory unless recognition and reward structures are amended to value the behaviour that they seek to create.

In some respects TNA is both an outmoded and dangerous term. It is outmoded because it emphasises analysis; 'analysis' implies breaking something down into parts to gain understanding but to be truly effective TNA also requires synthesis, an understanding of the greater whole. TNA should enable you to describe the skills and competencies you have within your workforce but, more importantly, help you imagine new levels of performance. TNA is dangerous because it emphasises training when we should be concentrating our efforts on enabling learning. When it works, training produces consistent and predictable behaviour. This is fine for the production line but today's knowledge economy needs people who are sensitive to the changing environment, can adapt their behaviours accordingly and imagine new levels of performance and customer excellence. Such behaviours can only come from a workforce that has learned how to learn and is committed to doing so. Perhaps it is time for the training community to recognise that the world has changed and stop peddling TNA in favour of Learning Environment Synthesis.

Brian Sutton is Chief Educator at QA

8.6 Appendix F – Advance article “The Sage of Paradox”



Advance



The Sage of Paradox

Seasoning your Blended Learning

by Brian Sutton

Introduction

Ten years ago that great writer and business guru Charles Handy gave us “The Age of Paradox”. For Handy the book was triggered by the realisation that “so many things, just now, seem to create their own contradictions, so many good intentions have unintended consequences, and so many formulas for success carry a sting in the tail.” As I look around the world of Corporate Education, I reflect that much of what I see embarked upon in the name of innovation, or even “best practice”, often produces consequences that result in people like me spending their days engaged upon damage limitation rather than learning development.

About three years before I first read Charles Handys’ book I woke up one morning and found myself dead. This was particularly annoying as it turned out that brain death had occurred some 10 years earlier and nobody had had the good manners to tell me. Fortunately a cure was at hand; my brain was catapulted back into life by the simple, yet elegant, act of learning. I am pleased to report that I am now very much alive and learn something every single day. At the end of a day or week I reflect on the period that has just passed and I ask myself – not ‘what have I learned’ but rather ‘what new ways have I found to learn’. Learning is the difference between being a member

of the walking dead and doing something worthwhile. In our organisations it is the difference between success and falling short of achieving goals.

Why is it then that so many of our organisations invest vast sums in activities designed to promote learning but end up producing no discernible change in performance, or worse still produce an environment that inhibits learning?

This is the great paradox of corporate learning. We can better understand this paradox if we first spend a little time examining **four** contributory elements that individually or collectively have brought us to our current impasse.

Paradox 1 – Training can produce learning, but learning can produce surprises.

Make no mistake; training is not an acceptable synonym for learning. Learning is something that people do; training is something that is done to them, as a result of which learning may or may not take place. Learning is centred on the individual and requires he or she to be intimately involved. Through a process of reflection, new mental connections and models are created, new understandings are achieved.

Advance, ©Saffron Interactive 2004

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Training, by contrast, is centred on the deliverer or mode of delivery. The first, and often only, measure of success is the entertainment value. Training produces conditioned response and can only ever anticipate a limited subset of possible situations, whereas learning produces discriminating behaviour, which can be adopted and adapted to suit changing circumstances. We are interested in learning in the workplace because this is the mechanism through which people attain new levels of performance. Paradoxically, understanding what we have learned is less important than understanding how we have learned it.

From this we should conclude that our programmes should create and foster conditions that both create learning and encourage active reflection upon the process of learning. When did you last see a programme of any description that encouraged the participants to examine how they learned what they know?

We are comfortable with the idea of learning styles, indeed we are often happy to be classified by some external measure as a reflector or an activist, but how about encouraging participants to go beyond labels and explore how they really learn and how they can do it at will. Having gained an understanding they should be encouraged to build an individual learning plan, individual insofar as it pertains to

them, but collective in that it may well include others in their process of learning. Once people understand how they learn and start to take responsibility for their own learning, we find that learning ceases to be an event planned by others and becomes a process triggered by self-need, a process that sits comfortably alongside working and becomes indistinguishable from it.

Paradox 2 – We direct our resources to formal learning but the greatest organisational benefit stems from serendipitous informal learning connections.



Numerous studies show that between 70% and 75% of all our workplace learning takes place as a result of informal networks, processes and haphazard activities.



By contrast formal learning (that is the deliberate stuff that we invest in) is responsible for only about 25% of any uplift in productivity. By formal we mean activities that are constructed specifically with the aim of acquiring new knowledge, polishing skills and, occasionally, modifying behaviour.

Typical methods used are classroom, role-play, e-learning, video, seminars and workshops. Paradoxically it appears that the informal, spontaneous learning is the stuff that really makes a difference to performance. Could this be because it is situated and relevant, that it occurs naturally when it is needed and therefore is put immediately into practice? Interestingly, informal learning is just as likely to happen when providing advice as when asking for it. How odd then that despite these studies, over 90% of corporate investment in learning is directed at facilitating formal activities rather than supporting informal ones.

Given that informal learning appears to be so important, and will happen almost despite our efforts, it would appear to make sense to build learning programmes that reward and foster it.

When I put blended learning programmes together I stress the importance of creating informal study groups and study pairs, enabling communities of practice and

clubs, providing opportunities to share experience such as brown bag lunches (lunch and learn sessions). Even simple things like placing collections of internal white papers or short extracts from journals next to coffee machines can help stimulate discussion and sharing. Never underestimate the ability of people to seek out and learn from each other; you can help to facilitate this by providing a yellow pages of who knows what. Aim to facilitate the creation of networks not inhibit them.

Paradox 3 – We remember least when we listen, most when we teach others.

Style of Information Transfer	% Remembered
Reading	10
Seeing	20
Hearing	30
Seeing & Hearing	50
Collaborating	70
Practice	80
Teaching others	90

Source: Self-explanations: How to study and use examples in problem solving. Cognitive Science 1988

Studies that examine the impact of different information delivery mechanisms on retention provide interesting insights. On average we only remember 10% of what we

read. This is quite alarming given that the dominant form of information transfer in our organisations is the written word and even in e-learning, reading is the primary activity. We remember around 30% of what we hear but combining seeing and hearing together can raise retention to levels close to 50%, this is why we emphasise the use of visual aids in classroom training; it also explains why audio is more than just a gimmick when added to an e-learning package. In order to achieve retention levels of over 70%, it is necessary to introduce collaboration and individual or collective practice. But as anyone who has ever coached anyone knows the highest levels of understanding and retention are achieved when you teach something to someone else.

The key message from this research is that if retention is important, as educators we must strive to connect people together, encourage collaboration, get them to discover information together, solve problems collectively and teach each other.



The great news is that increasingly technology is enabling this. Virtual classroom technology (Centra, WebEx, Placeware etc) is at its heart a medium for collaboration not merely a broadcasting tool. These systems allow us to instantaneously connect people in remote locations, to share applications and knowledge, to work simultaneously on problems or obtain instant context sensitive coaching. We have seen that coaching and teaching are not only good for the recipient but also promote retention in the coach. Use this in programmes to build networks of internal coaches; encourage each person to find a mentor and meet with them regularly. Consider the value in peer review where staff/employees routinely ask respected peers for their opinion of important elements of their work. Take every possible opportunity to connect people; collectively they will create new knowledge.

Paradox 4 - We cram facts into people's heads, but increasingly professionals rely on external repositories of knowledge.

Year study carried out	% of knowledge you need to do your job that is stored in your head
1986	75
1997	15 - 20
2004	8 - 10

Source: Robert Kelley, Carnegie-Mellon University

Studies carried out over an extended time period by researchers at Carnegie-Mellon University in the USA have shown a remarkable shift in the percentage of knowledge that we hold in our heads in order to do our work. Less than 20 years ago, it was estimated that as much as 75%

of the knowledge needed for a professional to function was held in memory. Within ten years this had fallen to less than 20% and now in 2004 the figure is below 10%. It would appear that this change is both a function of the rapid increase in published information and knowledge but also a recognition that the value that a professional brings to a situation lies not in the ability to remember stuff but rather in the ability to synthesise and interpret information, make judgements and recommend appropriate action. Paradoxically we continue to build learning programmes that emphasise the cramming of facts and test the recall of knowledge. This is particularly true of much e-learning where the instructional model replicates the pedagogy of the Victorian classroom with its emphasis on tell and test.

So what can we draw from this research? When building learning programmes we need to place much greater emphasis upon discovery. Rather than learning information, we need to learn how to rapidly find relevant information. We need to be able to quickly discriminate between the superficial and the important; to use information from multiple sources to construct innovative solutions to unique problems. This points to a new set of skills to be learned. It also highlights the importance of creating structures to access both corporate and commercially available knowledge. Within our organisations we need to understand the dynamics of organisational learning and the importance of corporate memory. We need

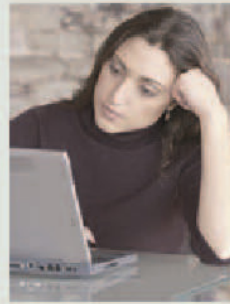
to deploy ways of identifying, classifying, storing, retrieving and sharing information that is in the public domain. We need to provide access to electronic publications and journals or web based full text repositories of published works like those provided by Books 24x7 or Safari.

Seasoning the Blend

So much of what we think and do is based upon received and unquestioned assumptions about how the world works. I have used the concept of paradox, as a means of highlighting just some of the areas where our assumptions may not just be wrong but may be producing consequences totally at odds with our intentions.

I have argued that we need to place the emphasis squarely on learning and facilitating learning in all its guises. We need to stop thinking of learning as an event that is organised by one set of people and imposed upon another. Learning is a natural consequence of living and working; work has always involved problem solving, judgement, conflict resolution, and choice – these are all learning events and learning opportunities. The trick is to raise individual consciousness of how, when and under what conditions learning takes place and what support structures are needed; in this way we can turn a naturally occurring process into an organisation transforming process.





In building and implementing blended learning programmes for large multi-nationals, I start from the premise: how do I remove the existing barriers that are inhibiting learning. The first and foremost task is always to understand how to connect people together and how to give them what they need in order for them to learn. Blended learning should not be about

gluing together disparate elements of technology to communicate a message more efficiently. It should be about finding ways to connect people and, having connected them, give them the things they need when they need them in the format that best suits them. All you need to do then is sit back and watch learning happen.





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Brian Sutton is Chief Educator for QA. He is charged with imagining the educational experience of tomorrow and creating it today. Brian is a Chartered Engineer, a fellow of the Institute of IT Training and is currently engaged on doctoral research in the area of valuing corporate learning initiatives.

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RESOURCE CENTRE

Demonstrating the value of learning initiatives

INTRODUCTION

One of the great drivers of the past 15 years has been organisational performance measurement and, consequently, a fascination with showing value for money. This has now reached every facet of organisational life. It does, however, remain something of a Curates egg.

Even in subject areas as tangible as the implementation of major information technology-based systems, successful exercises in proving value are notoriously difficult to find. It would appear that, despite the large investments involved, organisations are stunningly lax in specifying the expected business benefits that should accrue from the implementation of any particular programme and poor at base-lining the initial levels of performance.

They are even worse at tracking to ensure that initiatives do not deviate from the agreed path and, invariably, make little or no attempt to check after the event that anything worthwhile happened.

Despite this track record of poor governance there remains a thirst to achieve in less tangible areas, what has proved so illusive in apparently well-structured domains. And so it is that when senior executives meet to approve large-scale training or learning initiatives, the discussion quickly homes in on the problem of demonstrating that the learning investment will produce an appropriate financial impact – return on investment. The evaluation of learning, it would appear, is all the rage.

This paper will assess how evaluation takes place, in reality, in organisations today, and will propose modifications to current processes to enhance the effectiveness of evaluation as an integral element of learning programmes.

Key points

- The journey to demonstrate the value of learning starts before the learning itself
- Concentrate on who needs the evaluation data and how they will use it rather than worry about how to collect it
- Understand that it takes time to embed changed practice so aim for an evaluation regime that provides a rolling view of key metrics
- A five-stage evaluation model meets the above criteria and allows the programme to be managed throughout its lifecycle

THE KIRKPATRICK MODEL OF EVALUATION

In the late 1950s, Donald L Kirkpatrick proposed a model that has since been developed and refined into a four-level framework for training evaluation. The four levels are:

1. Reaction – measures how those who participated in the programme reacted to it. Usually measured using end-of-course happy sheets, based on a five- or seven-point scale
2. Learning – the extent to which participants change attitudes, improve knowledge and increase skill as a result of attending the programme. Usually measured using

objective-based test questions immediately after completion of the training

3. Behaviour – the extent to which a change in behaviour has occurred because the participants attended the programme. Measured (assessed) in the workplace, usually by self assessment or a 360-degree peer review.
4. Results – the final result that occurred because the participants attended the programme. This requires a view on the extent to which changes in key business metrics can be attributed to changes in individual behaviours

The model has now attained near universal acceptance with virtually all training evaluations in some way paying homage to Kirkpatrick's four levels. This wide acceptance is due in no small part to its apparent simplicity, elegance and appeal to common sense. However, the fact remains that despite its popularity and wide acceptance the majority of training evaluations begin and end with level-one reaction data, arguably the least relevant of all feedback.

Surely, if evaluation is to have any place in the corporate armoury it must have a higher purpose than that of justifying the existence of the training department?

CURRENT PRACTICE

Current training evaluation models are only partially implemented and often provide little or no indication of any linkage between learning and business improvement. Yet organisations invest increasingly large sums of money in learning and development initiatives. Can this simply be explained by the triumph of hope over reason or are there some, as yet, unspecified and intangible

Brian Sutton



Brian Sutton is the director of learning for QA. This article is based on a paper delivered to the American Educational Research Association annual meeting last month in Montreal. It also represents the preliminary findings of a doctoral thesis aimed at demonstrating the value of corporate learning initiatives

Despite an increasing drive to show value for money across organisations, the evaluation of learning programmes is often haphazard and occurs only as an afterthought. Brian Sutton outlines a model that links training to business goals and puts ongoing evaluation at the heart of any programme

factors that give senior management confidence that something worthwhile is taking place? If so, what are those factors? Is there any commonality between learning initiatives conducted in different organisations with different apparent aims?

This research project employs a qualitative grounded theory approach to investigate how organisations set about determining the value of their learning initiatives. It focuses on large-scale learning programmes that were aimed at diverse communities of more than 50 people and centred on areas of practice with a significant soft-skills bias, such as sales effectiveness, leadership, project management and business systems analysis. The programmes are drawn from a variety of sectors, including financial services, telecoms, IT services and the food and drinks industry. Interviews were conducted with the sponsors or champions of the initiatives, course designers, course attendees and receiving managers, and were drawn from the UK and US.

Almost all organisations professed a desire to link investment in learning to measurable changes in business performance. However, the reality was that there was not a single instance where such measures were defined at programme commencement. All organisations collected Kirkpatrick Level 1 reaction data, around one third checked on knowledge transfer (Level 2), but only one organisation expressed any desire to reach out into the workplace after training to assess behavioural change (Level 3). Even in this case, the desire only surfaced from the training community some nine months into the programme.

And yet, despite this lack of hard evidence, in almost every case the programme was considered to be an unequivocal success, and in some cases attempts were ongoing to replicate the success of the initiative in other parts

of the business. How then do organisations actually satisfy themselves that their learning investments are producing the required value? The evidence suggests that where some or all of the following conditions apply value is determined to have been created:

1. Techniques and skills from the learning are seen to be adopted in the workplace

The signs to look for are people trying new techniques or adapting their approach to problemsolving. Proficiency builds over time, and it is incumbent upon line management to provide an environment where workers have the confidence to apply newly acquired skills. More advanced indicators are critical appraisal of new techniques and recommending changes to suit local conditions and culture or working to adapt local processes to take advantage of new techniques. Perhaps the most powerful sign is when workers start to proactively advocate and disseminate best practice to their peers, resulting in techniques being adopted beyond those who were part of the trained community.

2. People share knowledge and experience

The things to watch out for are signs that people are becoming more connected. This is likely to start with staff spontaneously sharing stories of success and failure and could build up to the formation of communities of practice. One important side effect of this connectivity is that the organisation starts to gain a better understanding of where centres of tacit knowledge lie, in simple terms, who knows what. This in turn leads to connecting people to better utilise corporate memory and experience. As collaboration grows and virtual teams start to develop, it is common to see people building a willingness to accept collective responsibility for outcomes.

3. People show signs of new ways of thinking and working

Early signs to look for are a willingness to try new things, viewing and thinking about problems differently, which in turn leads to using information in a new way and thinking about the results of their own actions. As individuals gain confidence, they might become more prepared to make decisions and take personal responsibility for results.

At this stage, you would expect to see people forming new relationships and developing a wider circle of influence, all of which ultimately leads to less direct supervision and a more mentoring style of management. Evidence that these habits have become truly embedded may be taken from people starting to take a third-person view, for example identifying with the customer, adopting a longer term view and demanding that their colleagues act ethically and with integrity.

4. The organisation and the employee adopt a symbiotic approach to personal development

This is seen through processes built around the idea of linking learning and development initiatives to broader organisational goals. This is done through tangible links into the appraisal process and as an input to personal development plans, recognising the line manager's crucial role in the adoption of new skills and practices.

Encouraging trainees to build action plans of how they are going to incorporate new techniques into their practice, one would expect to see them sharing their plans with line management and working together to create opportunities for personal growth. The creation of information sharing structures gives the line manager dynamic data on the progress of the training programme and helps drive and gain acceptance of organisational change.

RESOURCE CENTRE

Demonstrating the value of learning initiatives Brian Sutton

◀ tional change. Softer symbols are a commitment to developing future talent and a willingness to take account of individual as well as organisational needs.

5. Learners enjoy their experience; they are enthused by it and recommend it to others

The usual evidence for this is positive end-of-course review, but this research has shown that senior managers place greater relevance upon secondary measures. Key among these are other senior managers and high-level speakers wishing and willing to commit time to the programme. Informal feedback and anecdotal evidence of value from the field come in the form of success stories and case studies. The most positive sign is other managers wishing to be associated with the programme or to emulate it in their own areas of the business.

FINDING A PURPOSE FOR EVALUATION

Evaluation is the mechanism through which we acquire feedback about the effectiveness of organisational initiatives. Its purpose is to inform management decision-making and facilitate action. Specifically, in the context of training, evaluation may be viewed as the process through which we assure that learning and development initiatives help to produce the desired individual and collective changes in practice and that such changes are supportive of the business goals that gave rise to the initiative.

Organisations do not invest in evaluation in order to prove that the training department is doing a good job. However, in his latest book, Kirkpatrick lists this as the primary purpose of evaluation. His secondary considerations are the decision whether to continue training programmes and gaining information on how to improve future programmes. While the final reason does point to organisational learning and hence the improved selection of training initiatives, the general tone points to what I consider to be

the fundamental problem with the conduct of training evaluation as it is currently practised: it is designed by training professionals, for use by training professionals, who then process data that is almost exclusively circulated to yet more training professionals.

The only way to break this cycle is to recognise that the only people in a position to judge the extent to which training has produced an impact on a business goal are those people charged with managing the business processes that gave rise to the goal. Therefore, the design of a training evaluation regime must precede the implementation of the training. It must include business managers from the outset and should be constructed to be operated by and inform those same managers.

TOWARDS A HOLISTIC MODEL OF EVALUATION

The discussion above points to the need for an evaluation framework that covers the whole of the learning and development life cycle and, ideally, is linked to and cross-referenced with the traditional training development life cycle. It should also be business-driven, providing management guidance to the business and supporting decision-making. It should provide ongoing quality and operational feedback to allow the training initiative to be managed through its life cycle.

Employing a five-stage evaluation model thus can satisfy these requirements:

1. Initiation – determine decision-makers' information needs
2. Set programme goals – business outcomes and training outputs
3. Design and pilot the evaluation regime
4. Monitor and control the programme
5. Demonstrate and share information on accrued value

A model such as this ensures that evaluation is thought about at the earliest possible stage of a learning and development initiative, and that business managers are inti-

mately involved in every aspect of the evaluation life cycle. The five stages are elaborated upon in the following paragraphs.

1. The initiation phase: determine decision-makers' information needs

The vast majority of programmes in the survey were initiated with one or more of the following aims in mind:

- Bring about fundamental change – move people out of their comfort zones
- Establish new ways of working
- Bring about incremental performance improvement
- Improve perceived poor service
- Identify and grow essential skills within the business

While trying to achieve these aims it was also deemed important to:

- Link training to business strategy and reflect leadership priorities
- Target specific competency areas
- Maintain central direction and influence career development

Only by understanding the reason for the initiative can you work with managers to define the nature and frequency of information flows needed to steer the programme in its broadest sense. In this way you can construct evaluation criteria that illuminate rather than cloud decision-making.

2. Set programme goals

Management are already interested in the programme, so it should be relatively simple to establish why they consider it important. Get them to describe what they think success would look like. Examine when it would be reasonable to expect to see the behaviours and practices emerging, and what adjustments may be needed to the working environment in order to facilitate these changes. Then construct a small number of measures that clearly indicate progress along each of ▶

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◀ the dimensions that represent the desired look and feel. Most management decisions are based upon emotion and gut feeling rather than any rational decision model. In a world where perception is everything don't be frightened of subjective measures.

Self and peer evaluation can reveal a lot about people's attitude to work and the way they deploy skills and knowledge in solving day-to-day business problems. If an assessment tool shows that people feel good about themselves and their colleagues, and feel a collective responsibility, you can be fairly sure that the business performance measures will mirror the positive trend.

3. Design and pilot the evaluation regime

When designing your evaluation regime, think about it as a mechanism for collecting and disseminating information about the progress of the initiative, so that all those involved can ensure they contribute effectively and make decisions that are good for the programme as a whole.

This means working with the management that commissioned the programme, but it also means working closely with the line managers, who will receive the trainees and whose task it is to embed new practice. The line manager is fundamental to creating and sustaining an environment that:

- Provides appropriate opportunities
- Redirects current tasks
- Shares experience and delegates wisely
- Tolerates mistakes
- Designs new practice
- Provides links to business direction and vision
- Gives feedback on progress

In order to do this effectively, the line manager needs feedback on progress along each of these dimensions and needs to understand where barriers to change exist – the evaluation regime should be the primary source of this in flight information.

4. Monitor and control the programme

During this phase, the emphasis should be on the overall direction of the programme and the identification of early signs of progress towards the stated and agreed goals. This should be a mix of standard measures of business performance combined with a rich picture of changes in knowledge, behaviour and the working environment that collectively could lead to new levels of practice.

Such a balanced basket of measures was absent from all the cases in the research sample. Indeed, other than the routine collection of reaction data and end-of-course focus groups, none of the organisation sampled exhibited any planned post-course data gathering. One organisation sought to instigate this type of research in response to unsolicited success stories from the field. In a number of cases, changes in the behaviour, demeanour and practice of the trained personnel led managers and customers to remark upon the changes – such stories of success enhanced the reputation of the programmes and led to the initiation of copy cat programmes. These success stories should not be left to chance, the collection and sharing of such data should be an integral part of the evaluation regime.

5. Demonstrate and share information about accrued value

This phase of the evaluation cycle has two purposes. Firstly, it needs to identify and track any changes in key business metrics agreed in the goal-setting phase and build upon the rich picture of change by adding further information about changing levels of practice. Secondly, this stage governs the communication and influencing strategy that is so important to building a wide-ranging appreciation of the benefits accrued from the programme.

The research appears to show that when looking for changes in practice, there are key differentiators that recur regardless of the

nature of the programme content; namely, one expects to see the community developing a common vocabulary and approach, consistent application and the wide adoption of standard templates and structures. As a result, customers regularly comment on professionalism and confidence of approach, while practitioners cite a greater sense of self worth and value.

It is important that the business and operational line managers are involved in the collection, analysis and dissemination of evaluation data, and that the data is structured in a manner that aids their decision-making process.

CONCLUSION

This research shows what most of us already suspected: the majority of learning and development initiatives are started without any clear articulation of the expected outcome and little idea of how such an outcome would be recognised if it happened. Furthermore, evaluation, when it occurs, is generally an afterthought and confined to reaction data collected soon after training completion.

I would wager that most of us would not dream of trying to drive from London to Brighton while wearing a blindfold, but this is the level of foolhardiness that drives the governance of many high-profile learning and development initiatives. Evaluation should be the eyes and ears of our training programmes; it can provide the sensory data that allows us to effectively steer programmes to achieve the desired business goals.

We need to stop thinking of evaluation as a mechanism for justifying previous action and start thinking about it as a means of illuminating current decision-making. I have proposed a model that makes evaluation the central governing function for learning programmes. I urge you to adopt this broader view of evaluation and start today to take control of the destiny of your programmes. ■

‘Return on Investment’ in the workplace: Demonstrating the Value of Learning Initiatives

A research report by

Brian Sutton, Director of Learning for QA (UK based training company)

Presented to AERA by

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One of the great drives of the last fifteen years has been organisational performance measurement (Neely 1998) and consequently a fascination with showing value for money. This has now reached into every facet of organisational life. Senior executives want to show that the investments they are making in Information Systems, process improvement, supply chain rationalisation, network communications, programme management, service management and, of course, learning and development produce the claimed benefits. Perhaps surprisingly this remains something of a “Curates egg”. Even in subjects areas as tangible as the implementation of major information technology-based systems, successful exercises in proving value are notoriously difficult to find. Given this pressure to demonstrate results one is left questioning why organisations are not doing more (Phillips, Phillips et al. 2004). It would appear that despite the large investments involved organisations are:

- stunningly lax in specifying the expected business benefits that should accrue from the implementation of any particular programme;
- poor at base-lining the initial levels of performance;
- even worse at tracking to ensure that initiatives do not deviate from the agreed path, and;
- invariably making little or no attempt to check after the

The Kirkpatrick Model of Training Evaluation	
Reaction	– measures how those who participated in the programme reacted to it. Usually measured using end of course (Happy Sheets), usually based upon a 5 or 7 point scale.
Learning	– the extent to which participants change attitudes, improve knowledge and increase skill as a result of attending the programme. Usually measured using objective based test questions immediately after completion of the training.
Behaviour	– the extent to which a change in behaviour has occurred because the participants attended the programme. Measured (assessed) in the workplace. Usually by self assessment or sometimes by 360 degree peer review. Assessment are subjective, difficulties arise in base-lining the pre-course behaviours.
Results	– the final result that occurred because the participants attended the programme. This requires a view on the extent to which changes in key business metrics can be attributed to changes in individual behaviours.

event that anything worthwhile happened.

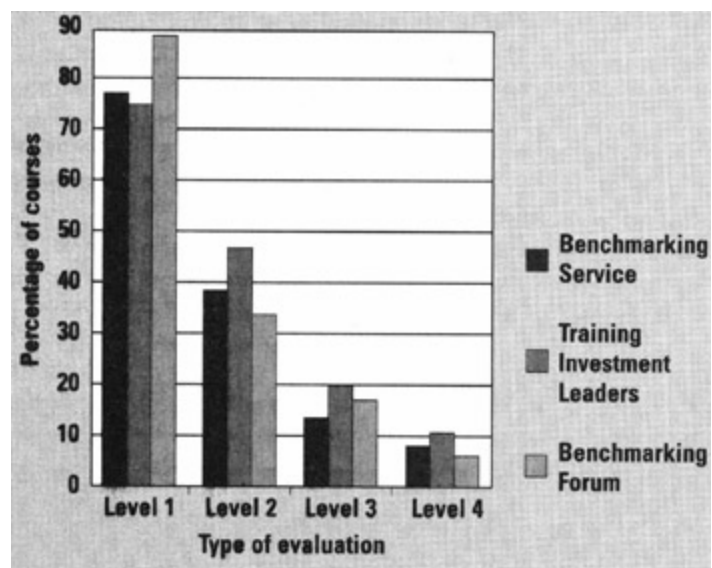
Despite this track record of poor governance and non-existent management oversight there remains a thirst to achieve in less tangible areas, what has proved so illusive in apparently well-structured domains. And so it is that when senior executives meet to approve large-scale training or learning initiatives the discussion quickly homes in on the knotty problem of demonstrating that the learning investment will produce an appropriate financial impact – Return on Investment. The evaluation of learning, it would appear, is all the rage.

This paper will assess how evaluation takes place, in reality, in organisations today, and will propose modifications to current processes to enhance the effectiveness of evaluation as an integral element of learning programmes.

Methods in common usage

Figure 1

In the late 1950s Donald L. Kirkpatrick proposed a model (see Figure 1) that has since been developed and refined into a four level framework for training evaluation (Kirkpatrick 1998). The model has now attained near universal acceptance with virtually all training evaluations in some way paying homage to



Kirkpatrick's four levels. This wide acceptance is due in no small part to its apparent simplicity, elegance and appeal to common sense. However, the fact remains that despite its popularity and wide acceptance the majority of training evaluations begin and end with level 1 reaction data, arguably the least relevant of all feedback. Indeed, a 2001 survey by the American Society for Training and Development (ASTD), Figure 2, quoted in Horton (Horton 2001), found that on average only about 8% of all training evaluations conducted professed any attempt to ascertain performance results-based evidence. We have then a situation whereby the most widely accepted framework for training evaluation consistently fails to produce the very evidence that it purports is

necessary to demonstrate value (Abernathy 1999). The ASTD study would appear to indicate that around 85% of all training evaluations only produce data that is meaningful to the training department; the data being used primarily for the purpose of fine tuning training initiatives. Surely, if evaluation is to have any place in the corporate armoury it must have a higher purpose than that of justifying the existence of the training department.

A Survey of Current Practice

As we have seen, current training evaluation models are only partially implemented and often provide little or no indication of any linkage between learning and business improvement. As one course designer in the telecoms industry said, “*We had asked those types of questions to the executive team and we never really got a solid answer on what they were looking for. They knew what they wanted but we never got our finger on the pulse of level 4 outcomes.*” Yet, self-evidently, organisations invest increasingly large sums of money on learning and development initiatives. Can this simply be explained by the triumph of hope over reason or are there some, as yet, unspecified and intangible factors that are apparent that give senior management confidence that something worthwhile is taking place? If so, what are those factors? Is there any commonality between learning initiatives conducted in different organisations with different apparent aims?

This research project employed a qualitative grounded theory approach to investigate how organisations really set about determining the value of their learning initiatives. It focused on large-scale learning programmes that shared the following characteristics: they were all aimed at diverse communities of more than 50 people and they centred on areas of practice that had a significant soft skills bias such as sales effectiveness, leadership, project management and business systems analysis. The programmes were drawn from a variety of sectors, including financial services, telecommunications, IT Services and the food and drinks industry. Interviews were conducted with the sponsors or champions of the initiatives, course designers, course attendees and receiving managers, and were drawn from the UK and USA.

Almost all organisations in my research sample professed a desire to link investment in learning to measurable changes in business performance; one manager in the survey encapsulated this by stating that what she was looking for were – “*Changes to the*

bottom line or changes to the culture that would connect to changes to the bottom line.” However, the reality was that there was not a single instance where such linkages and measures were defined at programme commencement; one senior manager summed up the frustration felt by most when she confessed – *“I have not seen much evidence of evaluating outcomes after the event”*. All organisations collected Kirkpatrick Level 1 reaction data, approximately one third of the sample checked formally on knowledge transfer (Level 2) but only one organisation expressed any desire to reach out into the workplace after training to assess behavioural change (level 3). The programme designer commented thus; *“So right now we are trying to go through a Kirkpatrick level 3 approach and identify what are the skills applied and try to get anecdotal information about certain contracts that have been won where we think we could attribute any degree of the success to the training programme”*. Even in this case the desire only surfaced from the training community some nine months into the life of the programme.

And yet, despite this lack of hard evidence, in almost every case surveyed the programme was considered to be an unequivocal success and in some cases attempts were ongoing to replicate the success of the programmes in other parts of the business. How then do organisations actually satisfy themselves that their learning investments are producing the required value? The balance of evidence drawn from the interviews in my research sample appears to suggest that where some or all of the following conditions apply value is determined to have been created:

1. Techniques and skills from the learning programme are seen to be adopted in the workplace.

The signs to look for are people trying out new techniques or adapting their approach to problem solving. One receiving manager commented that the training appeared to have had the effect of *“bringing them all to a common standard in the language of analysis in terms of what are the processes, what are the rules, what are the specifications”*, and that as a result *“they now understand there is no ambiguity about what anybody*

Figure 2

Factors that build management confidence and point to success	
◆	Techniques and skills from the learning programme are seen to be adopted in the workplace.
◆	People show signs of new ways of thinking and working.
◆	People become more willing to share knowledge and experience.
◆	The organisation and the employee adopt a symbiotic approach to personal development.
◆	Learners enjoy their experience; they are enthused by it and recommend it to others.

means.” It must be understood that proficiency builds over time and it is incumbent upon line management to provide an environment where workers have the confidence to apply newly acquired skills in an operational environment. More advanced indicators are critical appraisal of new techniques and recommending changes to suit local conditions and culture, or working to adapt local processes to take advantage of new techniques. Perhaps the most powerful sign is when workers start to proactively advocate and disseminate best practice to their peers resulting in techniques being adopted beyond those who were part of the trained community.

2. **People share knowledge and experience.** The things to watch out for here are signs that people are becoming more connected. This is likely to start with people spontaneously sharing stories of success and failure and could build up to the formation of communities of practice. This is evidenced by comments from managers along the lines of *“We encourage them to keep track of their successes and share them and keep in touch. We have some real good stories of a million \$ here or there that show that we are making a difference”*. One important side effect of this connectivity is that the organisation starts to gain a better understanding of where centres of tacit knowledge lie, in simple terms, who knows what. This in turn leads to connecting people together to better utilise corporate memory and experience. This improved connectivity was perceived to be a key side effect of many of the programmes as evidenced by comments such as observable increases in *“Networking, partnering and collaboration”*. As collaboration grows and virtual teams start to develop it is common to see people building a willingness to accept collective responsibility for outcomes.
3. **People show signs of new ways of thinking and working.** Early signs to look for are a willingness to try new things, viewing and thinking about problems differently which in turn leads to using information differently and thinking about the results of their own actions. Typical of manager’s comments in the arena were observations such as *“Seeing ideas through to completion picking up all those great ideas that would otherwise be left by the wayside”*. As individuals gain confidence we might expect to see signs of being more prepared to taking decisions and to take personal responsibility for results. Decision making is becoming a critical business attribute as indicated by comments such as *“Decision making is also key; the velocity of decision-making has increased so we see decision-making skills as absolutely critical”*. At this stage you would expect to see people forming new relationships and developing a wider circle of influence all of which ultimately leads to less direct

supervision and a more mentoring style of management. Evidence that these habits have become truly embedded may be taken from people starting to take a third person view, e.g. identifying with the customer (internal or external), as one manager opined *“Do they talk about the business challenges of customers”* and *“do they talk about customer service and the efficiencies of the way we have satisfied their requirements”*. Are they adopting a wider, longer term view and demanding that their colleagues act ethically and with integrity.

4. **The organisation and the employee adopt a symbiotic approach to personal development.** This is seen through processes built around the idea of linking learning and development initiatives to broader organisational goals through tangible links into the appraisal process and as an input to personal development plans. Recognition of the line managers crucial role in the adoption of new skills and practices. Various managers in the survey commented upon the critical role of management support, typical amongst the comments were a desire to see initiatives driven; *“more effectively from a corporate level”* and for *“most senior management to show passion and belief in the concepts that underpin the training”* as this leads to *“line management below them may also see it as important and then things like this get followed through”*. Encouraging trainees to build action plans of how they plan to incorporate new techniques into their practice, one would expect to see them sharing their plans with line management and working together to create opportunities for personal growth. The creation of information sharing structures gives the line manager dynamic data on the progress of the training programme and help the manager to drive and gain acceptance of organisational change. Softer symbols are a commitment to developing future talent and a willingness to take account of individual as well as organisational needs.
5. **Learners enjoy their experience; they are enthused by it and recommend it to others.** The usual evidence for this is positive end of course reviews but this research has shown that senior managers place greater relevance upon secondary measures. Key amongst which are other senior managers and high levels speakers wishing and willing to commit time to the programme. Informal feedback and anecdotal evidence of value from the field come in the form of success stories and case studies. But without doubt the most positive sign is when other managers wish to be associated with the programme or to emulate it in their own areas of the business. One manager in particular told of an initiative that had initially received little management support but once successful senior management adopted it and

there was rapid evidence of emulation in other departments, he was quoted as saying, *“now there is a testing competency manager and they have there own training in place”* and *“also the project management community have recently appointed a competency manager and they are looking at how they build competency going forward.”*.

Finding a Purpose for Evaluation

Evaluation is the mechanism through which we acquire feedback about the effectiveness of organisational initiatives; its purpose is to inform management decision-making and facilitate action. Specifically in the context of training, evaluation may be viewed as:

The process through which we assure that the learning and development initiatives help to produce the desired individual and collective changes in practice and that such changes are supportive of the business goals that gave rise to the initiative.

Organisations do not invest in training in order to keep the training department busy nor do they invest in evaluation in order to prove that the training department is doing a good job. However, in his latest book, Kirkpatrick lists this as the primary purpose of evaluation (Kirkpatrick 1998). He lists secondary considerations as the decision whether to continue or discontinue training programmes and gaining information on how to improve future programmes. Whilst the final reason does point to organisational learning and hence the improved selection of training initiatives, the general tone points to what I consider to be the fundamental problem with the conduct of training evaluation

Figure 3

Problems with Kirkpatrick
<ul style="list-style-type: none"> ◆ It is an incomplete model in that it's first step can occur only after a training event has happened. ◆ It claims to be business focused but it is designed by trainers, for trainers and uses training language. ◆ It claims to be outcome oriented but concentrates almost exclusively upon process measures.

as it is currently practised: that is that it is designed by training professionals, for use by training professionals who subsequently process data which is almost exclusively circulated to yet more training professionals (Abernathy 1999; Islam 2004).

Indeed Abernathy quoting

Bernthal goes so far as to question if the wide acceptance of Kirkpatrick may have “limited our thinking regarding evaluation and possibly hindered our ability to conduct meaningful evaluations” (Abernathy 1999). I believe that the only way to break this incestuous and ultimately debilitating cycle is to recognise that the only people in a

position to judge the extent to which training has produced an impact on a business goal are those people who are charged with managing the business processes that gave rise to the goal. Therefore, the design of a training evaluation regime must precede the implementation of the training, it must include business managers from the outset and should be constructed to be operated by and inform those same managers.

Kirkpatrick is not an evaluation framework, it is a set of conditional propositions that relate the acquisition of skills and knowledge to the development of behaviour and subsequent performance (Phillips and Stone 2002). It provides no guidance on how such causal linkages between behaviour and performance could be established. The assumption appears to be that evaluation can only be effectively performed for that subset of tightly bounded situations such as systems or process training or specific health and safety programmes where error rates, rework or accident statistics are readily available. In all other cases we are valid in throwing our arms in the air and claiming sorry we would like to do this but it's just too difficult (Kirkpatrick 1998; Abernathy 1999; Phillips and Stone 2002).

Towards a Holistic Model of Evaluation

The discussion above points to the need for an evaluation framework that covers the whole of the learning and development life cycle; one that ideally is linked to and cross-referenced with the traditional training development life cycle. This view is supported by practitioners who are charged with implementing evaluation in organisations (Brinkerhoff 1998; Bushnell 1998). Further, it should be business-focused and business driven, providing management guidance to the business and supporting decision-making (Kirkpatrick and L'Allier 2002; Islam 2004). It should also provide ongoing quality and operational feedback to allow the training initiative to be managed through its life cycle (Cross 2004).

Based upon emerging best practice from the literature and from the opinions expressed in the research interviews it would appear that the best results of evaluation would be obtained when using a holistic life cycle – I propose that the following five-stage evaluation model would satisfy these requirements:

1. Initiation - determine decision-makers information needs
2. Set programme goals – business outcomes and training outputs
3. Design and pilot the evaluation regime
4. Monitor and control the programme
5. Demonstrate and share information on accrued value

A model such as this ensures that evaluation is thought about at the earliest possible stage of a learning and development initiative and that business managers are intimately involved in every aspect of the evaluation life cycle. The five stages are elaborated upon in the following paragraphs and the Figure 5, provides a useful summary for action.

Figure 4 - A Five Stage Evaluation Model

Instructional Systems Design Model (ISDM)	Evaluation Life Cycle	Focus for Evaluation
Needs Assessment	Initiation – Identify Information Needs	<ul style="list-style-type: none"> • What are we trying to do? • Is this linked to broader business strategy? If so how? • Who are the decision makers? • What information do they need and in what form? • What will they do with the information and when will they need it?
Design	Set programme goals	<ul style="list-style-type: none"> • What are the overall business goals related to this initiative? <ul style="list-style-type: none"> • Is it linked to fundamental organisational change? • Is it designed to roll-out best practice? • What does the desired end state look and feel like <ul style="list-style-type: none"> • How will you recognise you are there? • At what stage is it reasonable to expect to see the effects of the change? <ul style="list-style-type: none"> • Construct a time phased benefits realisation plan • What else would give the decision makers comfort that progress is being made?
Development	Design and pilot the Evaluation Regime	<ul style="list-style-type: none"> • What information do training managers need to manage the conduct of the training programme? • What information do business and line managers need to ensure that the goals of the programme are met? • What information do operational managers need about the impact of the working environment on the adoption of new practice? • How can we encourage action planning to drive new behaviours?
Implementation	Monitor and Control the Programme	<ul style="list-style-type: none"> • Look for changes in knowledge <ul style="list-style-type: none"> • Increased collaboration • Increased take up of accreditation's • Look for changes in behaviour <ul style="list-style-type: none"> • Collaboration and networking • Attitudinal changes • Broader perspective • Increased circle of influence • Look for changes in the environment <ul style="list-style-type: none"> • Line manager changing behaviour • Line manager removing barriers to change • Change reaching beyond target community
Post course evaluation	Demonstrate and share information on accrued value	<ul style="list-style-type: none"> • Look for changes in Practice <ul style="list-style-type: none"> • Sharing ideas and techniques • Common vocabulary and approach • Attempts to apply techniques • Sense of professionalism / value / self worth • Look for changes in traditional measures of business performance

The Initiation phase; determine decision-makers information needs.

Organisations engage in learning and development programmes for a variety of reasons and they may not have a discipline of articulating these clearly to the same level of rigour that would be expected from a technology project of similar budget. The vast majority of the programmes in the survey were initiated with one or more of the following aims in mind:

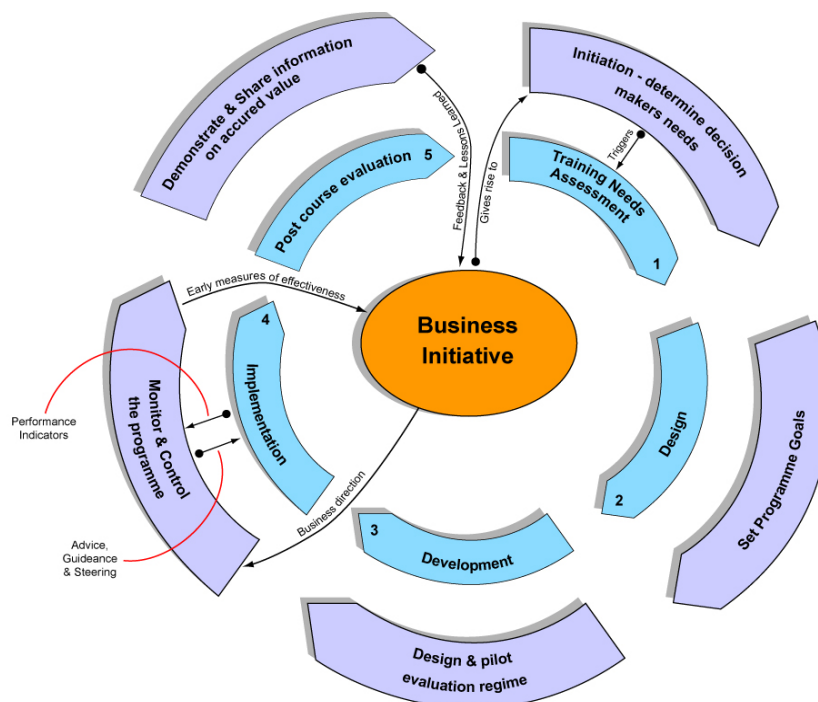
- Bring about fundamental change – move people out of their comfort zones
- Establish new ways of working
- Bring about incremental performance improvement
- Improve perceived poor service
- Identify and grow essential skills within the business

Whilst trying to achieve these aims it was also deemed important to:

- Link training to business strategy and reflect leadership priorities
- Target specific competency areas
- To maintain central direction and influence career development

Only by understanding the reason for the initiative can you work with managers to define the nature and frequency of information flows that are needed to steer the programme in its broadest sense. As Islam puts it we cannot continue to build evaluation regimes that “virtually ignore the perspective of the entity that, in many cases, finances the training to begin with, the business stakeholder” (Islam 2004). Our aim then must be to construct evaluation criteria that illuminate rather than cloud management decision-making.

Figure 5 - Shows how the 5 stage evaluation model inter-relates with the traditional training development life cycle



Set programme goals

Management are already interested in the programme so it should be relatively simple to establish why they consider it to be important. Get them to describe what they think success would look and feel like. Examine when it would be reasonable to expect to see the behaviours and practices emerging and what adjustments may be needed to the working environment (including processes and systems) in order to facilitate these changes. Then construct a small number of measures that clearly indicate progress along each of the dimensions that represent the desired look and feel. Cross terms these performance agreements and exhorts us to explicitly state the what-ifs and maybes using assumptions that sponsors can buy into (Cross 2004). Contrary to popular belief, most management decisions are based upon emotion and gut feel rather than any rational decision model. In a world where perception is everything don't be frightened of subjective measures. Self and peer evaluation can reveal a lot about peoples attitude to work and the way they deploy skills and knowledge in solving day to day business problems. As Abernathy points out 360 assessment is an excellent method to determine whether co-workers have experienced a difference in the performance of the training participant (Abernathy 1999). If an assessment tool shows that people feel good about themselves and their colleagues and feel a collective responsibility you can be fairly sure that the business performance measures will mirror the positive trend. McLinden, quoted in Abernathy, points out that we need to "communicate results clearly to business people who are not necessarily interested in the fine points of statistics and research design" (Abernathy 1999).

Design and pilot the evaluation regime.

When designing the evaluation regime think about it as a mechanism for collecting and widely disseminating information about the progress of the initiative so that all those involved can ensure that they contribute effectively and make decisions that are good for the programme as a whole. This means working with management who commissioned the programme but it also means working closely with the line managers who will receive the

Figure 6

Key Points

- ◆ The journey to demonstrate the value of learning starts before the learning itself
- ◆ Concentrate on who needs the evaluation data and how they will use it rather than worry about how to collect it
- ◆ Understand that it takes time to embed changed practice so aim for an evaluation regime that provides a rolling view of key metrics

trainees and whose task it is to embed new practice. The line manager is fundamental to creating and sustaining an environment that:

- Provides appropriate opportunities
- Redirects current tasks
- Shares experience and delegates wisely
- Tolerates mistakes
- Designs new practice
- Provides links to business direction and vision
- Gives feedback on progress

In order to do this effectively the line manager needs feedback on progress along each of these dimensions and needs to understand where barriers to change exist – the evaluation regime should be the primary source of this in flight information.

Monitor and Control the Programme.

During this phase the emphasis should be upon the overall direction of the programme and the identification of early signs of progress towards the stated and agreed goals. This should be a mix of standard measures of business performance combined with a rich picture of changes in knowledge, behaviour and the working environment that collectively could lead to new levels of practice. I place emphasis on the word practice as this implies performance in the workplace, other practitioners refer to this as Transfer, - the point being that the gaining of a degree of competence only matters if that competence translates to improved job performance, in my terms practice (Garavaglia 1998). Today's managers are seeking data that shows the business impact of learning and development both from a short term and a long term perspective (Phillips, Phillips et al. 2004). Such a balanced basket of measures (term coined by Kaplan and Norton in their attempt to broaden the organisational performance debate beyond just financial measures (Kaplan and Norton 1992)) was absent from all of the cases in the research sample, indeed other than the routine collection of reaction data and end of course focus groups, none of the organisation sampled exhibited any planned post course data gathering. One case only sought to instigate this type of research in response to unsolicited success stories from the field. In a number of cases, changes in the behaviour, demeanour and practice of the trained personnel led managers and customers to remark upon the changes – such stories of success enhanced the reputation of the programmes and led to the initiation of copy cat programmes. Such stories should not be left to chance, the collection and sharing of such data should be an integral part of the evaluation regime.

Demonstrate and share information about accrued value.

This phase of the evaluation cycle has two purposes, firstly it needs to identify and track any changes in key business metrics agreed in the goal-setting phase and also build upon the rich picture of change by adding further information about changing levels of practice. Secondly, it governs the communication and influencing strategy that is so important to building a wide-ranging appreciation of the benefits accrued from the programme. Indeed our aim should be to create an ongoing dialogue and hence to shape impressions and decisions over the long run (Pulley 1998). The research appears to show that when looking for changes in practice, there are key differentiators that recur regardless of the nature of the programme content; namely, one expects to see the community developing a common vocabulary and approach, consistent application and the wide adoption of standard templates and structures. Customers regularly comment upon professionalism and confidence of approach whilst practitioners cite a greater sense of self worth and value. It is important that the business and operational line managers are involved in the collection, analysis and dissemination of evaluation data and that it is structured in a manner that aids their decision making process.

Final Thoughts

This research shows what most of us already suspected; most learning and development initiatives are started without any clear articulation of the expected outcome and little idea of how such an outcome would be recognised if it happened. Furthermore, evaluation, when it occurs is generally an afterthought and usually confined to reaction data collected soon after training completion. I would wager that most of us would not dream of trying to drive from London to Brighton whilst wearing a blindfold, but this is the level of foolhardiness that drives the governance of many high profile learning and development initiatives. Evaluation should be the eyes and ears of our training programmes it can provide the sensory data that allows us to effectively steer programmes to achieve the desired business goals. We need to stop thinking of evaluation as a mechanism for justifying previous action and start thinking about it as a means of illuminating current decision-making. I have proposed a model that places evaluation as the central governing function for learning programmes I urge you to adopt this broader view of evaluation and start today to take control of the destiny of your programmes.

Brian Sutton is the Director of Learning for QA. This paper represents the preliminary findings of a Doctoral thesis aimed at demonstrating the value of corporate learning initiatives

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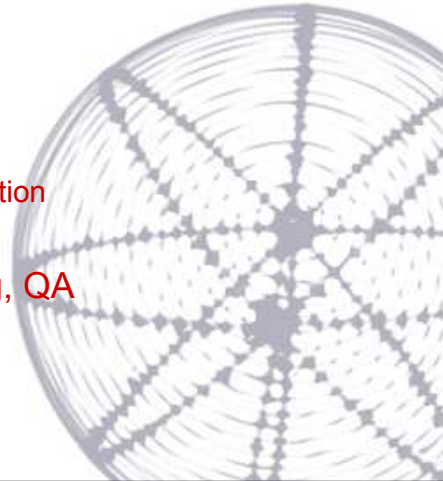
Provisional Research Finding from Studies
Arising from:

Doctorate in Professional Studies -

Strategic Developments in Corporate Education

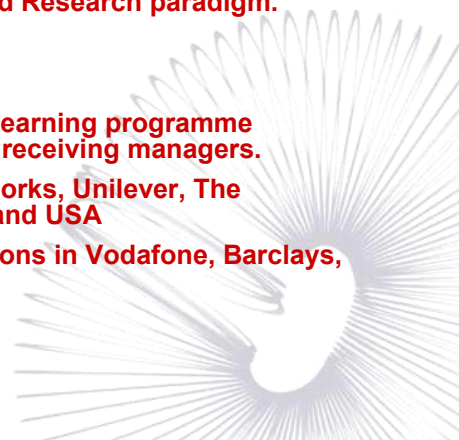
Brian Sutton – Director of Learning, QA

Supervisor – Prof John Stephenson, Mdx University



Details of the Research Programme

- **Research Title:**
 - Adopting a holistic approach to the valuation of learning programmes deployed in corporate environments
- **The Method:**
 - A qualitative study using a Grounded Research paradigm.
- **The Study:**
 - In depth interviews conducted with learning programme sponsors, designers, delegates and receiving managers.
 - Interviews conducted in Nortel Networks, Unilever, The Prudential, JD Williams – in the UK and USA
 - Focus groups and informal discussions in Vodafone, Barclays, Scottish Parliament, Verax.





Project Research Questions

- The Research Questions to be addressed by the proposed project are:
 - How do organisations currently justify expenditure on learning programmes?
 - What is the current state of best practice in evaluating the success of programmes during and after implementation?
 - What major measures of organisational success would organisations like to map against when demonstrating the value of their learning investments?
 - What practices must be in place to value training and what practices are just nice to have?
 - What are the major obstacles to the implementation of learning evaluation methods?
 - How can the identified obstacles be circumvented or mitigated?
 - To what extent can the application of a training evaluation method be systematised?



Current Practice Measuring Training Effectiveness

The 4 levels proposed by Donald Kirkpatrick;

1. **Reaction** – measures how those who participated in the programme reacted to it.
2. **Learning** – the extent to which participants change attitudes, improve knowledge and increase skill as a result of attending the programme.
3. **Behaviour** – the extent to which a change in behaviour has occurred because the participants attended the programme.
4. **Results** – the final result of that occurred because the participants attended the programme.



But Higher Level Kirkpatrick isn't Implemented

Problems with Kirkpatrick

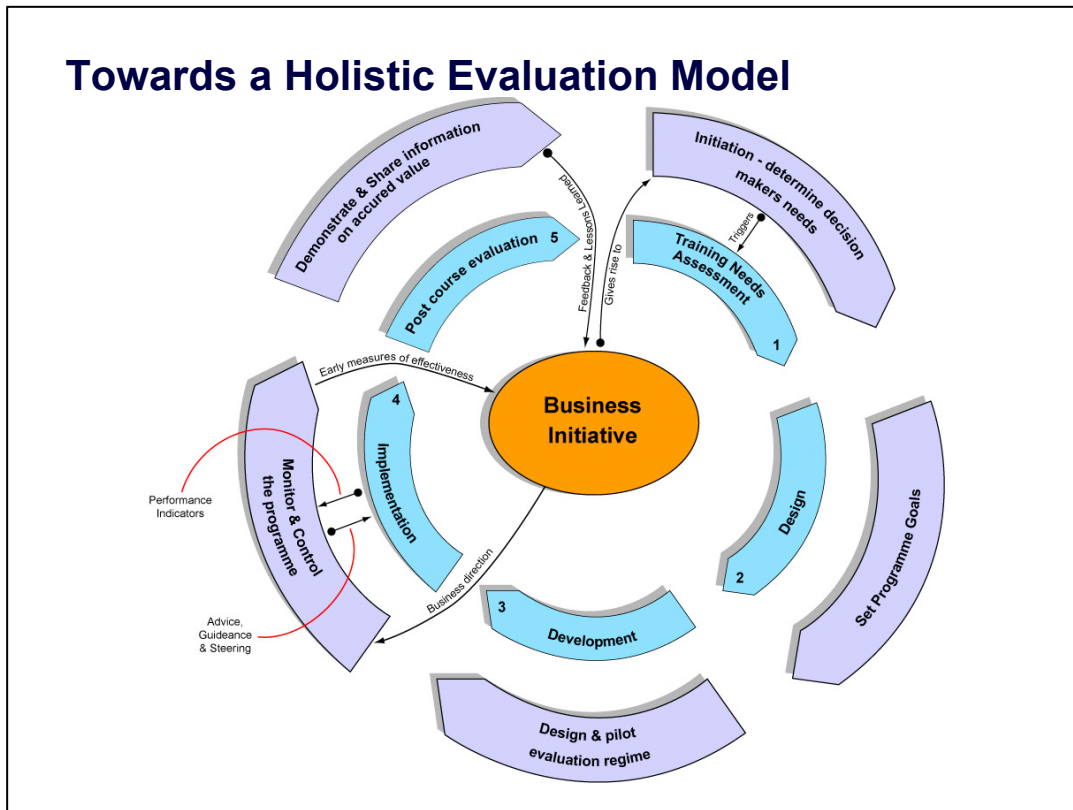
- ◆ It is an incomplete model in that it's first step can occur only after a training event has happened.
- ◆ It claims to be business focused but it is designed by trainers, for trainers and uses training language.
- ◆ It claims to be outcome oriented but concentrates almost exclusively upon process measures.



What Actually Happens on the Ground

Factors that build management confidence and point to success

1. Techniques and skills from the learning programme are seen to be adopted in the workplace.
2. People show signs of new ways of thinking and working.
3. People become more willing to share knowledge and experience.
4. The organisation and the employee adopt a symbiotic approach to personal development.
5. Learners enjoy their experience; they are enthused by it and recommend it to others.



The Five Steps in More Detail

1. Initiation - determine decision-makers information needs
2. Set programme goals – business outcomes and training outputs
3. Design and pilot the evaluation regime
4. Monitor and control the programme
5. Demonstrate and share information on accrued value



Key Findings

Key Points

- ◆ The journey to demonstrate the value of learning starts before the learning itself
- ◆ Concentrate on who needs the evaluation data and how they will use it rather than worry about how to collect it
- ◆ Understand that it takes time to embed changed practice so aim for an evaluation regime that provides a rolling view of key metrics



Options for Further Research

- The next steps in this research will seek to:
 - Test the model and assumption against learning programmes in the field.
 - To systematise the model and provide both comprehensive guidance for its implementation but also a data gathering and analysis tool so that the model can be used to dynamically manage ongoing learning programmes.
 - Confirm and refine the initial research findings in the light of more widespread implementation.



Feedback

***Brian Sutton** is the Director of Learning for QA. This paper represents the preliminary findings of a Doctoral thesis aimed at demonstrating the value of corporate learning initiatives.*



Full text of this paper is available at: <http://www.iclml.com>

Feedback welcome, sent to: brian.sutton@qa.com

‘Return on Investment’ in formal education and training: what can be learned from the corporate sector?

Brian Sutton, and John Stephenson

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Abstract

The concept of Return on Investment (ROI) in training has hitherto been largely associated with the corporate world, where Donald Kirkpatrick’s four-level model of training evaluation is widely used. Interest in Kirkpatrick is growing in the public sector. This article examines how the Kirkpatrick model is actually used in a range of commercial organizations and reports that despite the continuing respect for the model as a whole, there are few examples of organizations moving beyond Kirkpatrick’s basic first level evaluation. Using a grounded theory analysis of interviews with key decision-makers in over forty businesses we explore what practitioners believe to be the important factors to take into account when judging overall effectiveness of training programmes and present a new five-stage holistic model for evaluating ROI based on their views and experience. The model involves all stakeholders in the evaluation process, not just (as is often the case) training departments judging the quality of their own work. We conclude with some thoughts on the possible applicability of the 5-stage model to the evaluation of public sector education and training initiatives.

Assessing return on investment (ROI) from in-house training is regarded as a legitimate component of development planning in the corporate world but so far it has not figured as prominently in that guise in formal education and training in the public sector. This is despite a call in the 1997 Fryer Report on Continuing and Lifelong Education (Fryer, 1997) that the UK should ‘identify rates of return on investment in different post compulsory education and training, including the long-term benefits’. Traditional educationalists’ suspicion of corporate values is reflected in Fryer’s demand that such studies should go beyond ‘*narrowly economic*’ and ‘*short term monitoring*’ to embrace wider benefits to individuals and society.

Fryer’s theme is echoed today, eight years later, by the UK’s Parliamentary and Health Service Ombudsman who in April 2005 called for ‘*an effective return on the investment in training and development activity, and to seek continuous improvement in the way that development needs are met.*’ (Parliamentary and Health Service Ombudsman, 2005). Like Fryer, the Ombudsman seeks to go beyond conventional accounting to embrace the ‘impact on knowledge, skills, and performance at individual, team and organisational levels’. The 2005 UK Government’s White paper on ‘14-18 Education and Skills’ (Kelly, 2005) gets close to a commitment to an ROI strategy by pledging to ‘*work with employers and*

universities to see if we can identify what, if anything, would add value to existing courses and we will review progress in 2008' without actually mentioning ROI as such.

Continuing pressures for a more overt commitment to better ROI procedures in public education include a) employers with an ROI culture engaging as partners with colleges in new training initiatives, (Smith, 2001; Billett and Smith 2003), b) university researchers looking for funding from major companies, as in the medical field (Linda Hutchinson, 1999), and c) the rapid expansion of e-learning with its demands for high up-front investment in technology and systems (Stephenson, 2003; Attwell and Hughes, 2003; Williams, D, 2003). With lively public concern and debate about investment in public services in general, the time is right to explore ways in which a viable approach to assessing return on investment on education and training in the public sector might be formulated. We already have targets, value-added criteria for judging quality, retention and completion statistics, student feedback on teachers and externally moderated quality assurance of overall standards, but is there an overall model that would facilitate comparative analyses on which judgments of different investment strategies might be made?

In recent years a number of academics (Beaton and Richards, 1997; Hutchinson, 1999; Konrad 2003; Moy and McDonald, 2000; Walker 2004) have looked at the work of Donald L. Kirkpatrick (1998) on ROI (see Figure 1) as a possible way forward. But before more academics

Insert Fig 1 about here

embrace the Kirkpatrick model as a response to the drive for ROI strategies in the public sector, it would be useful to take a closer look at how the Kirkpatrick model operates in practice in its own territory. Walker (2004) and others have complained about a 'lack of research' on ROI in the educational context but, despite its importance, the corporate world also lacks close scrutiny (Phillips, Phillips et al, 2004). This paper seeks to redress that omission by presenting a critical appraisal of the Kirkpatrick model based on field research completed by the first author involving more than 40 senior figures with responsibility for various aspects of the commissioning and delivery of training in Kirkpatrick's heartland, big business. The research leads to a critical appraisal of how Kirkpatrick's model is actually being used as opposed to being cited as being used, and suggests ways in which the

model might be enhanced. We conclude with some considerations of how an enhanced Kirkpatrick model might be useful in the public sector.

The Kirkpatrick model

In the late 1950s Donald L. Kirkpatrick proposed a model that has since been developed and refined into the four level framework for training evaluation shown in Figure One (Kirkpatrick, 1998). The model has now attained near universal acceptance with virtually all training evaluations in some way paying homage to Kirkpatrick's four levels. This wide acceptance in the corporate world is due in no small part to its apparent simplicity, elegance and appeal to common sense. However, the fact remains that despite its popularity and wide acceptance the majority of training evaluations begin and end with level 1 reaction data, arguably the least relevant of all feedback. Indeed, a 2001 survey by the American Society for Training and Development (ASTD), (Figure 2, quoted in Horton 2001), found that on average only about 8% of all training evaluations conducted professed any attempt to ascertain performance results-based evidence. We have then a situation whereby the most widely accepted framework for training evaluation consistently fails to produce the very evidence that it purports is necessary to demonstrate value (Abernathy, 1999).

Insert Fig 2 about here

The ASTD study would appear to indicate that around 85% of all training evaluations only produce data that is meaningful to the training department; the data being used primarily for the purpose of fine-tuning training initiatives.

Current training evaluation practice, it seems, often provides little or no indication of any linkage between learning and business improvement. As one course designer in the telecoms industry said, *"We had asked those types of questions to the executive team and we never really got a solid answer on what they were looking for. They knew what they wanted but we never got our finger on the pulse of level 4 outcomes."* Yet, self-evidently, organisations invest increasingly large sums of money on learning and development initiatives. Can this simply be explained by the triumph of hope over reason or are there some, as yet, unspecified and intangible factors that are apparent that give senior management confidence that something worthwhile is taking place? If so, what are those factors? Is there any

commonality between learning initiatives conducted in different organisations with different apparent aims?

A Survey of Current Practice

The research employed a qualitative grounded theory approach (Glaser & Strauss, 1967 and Strauss & Corbin, 1997) to investigate how organisations really set about determining the value of their learning initiatives. It focused on large-scale learning programmes that shared the following characteristics: they were all aimed at diverse communities of more than 50 people and they centred on areas of practice that had a significant soft skills bias such as sales effectiveness, leadership, project management and business systems analysis. The programmes were drawn from a variety of sectors, including financial services, telecommunications, IT Services and the food and drinks industry. Interviews were conducted with the sponsors or champions of the initiatives, course designers, course attendees and receiving managers, and were drawn from the UK and USA. Interview transcripts were analysed using successive levels of coding to allow generalised themes to emerge from the subjects themselves. It is these grounded themes that are used in the following discussion, illustrated by apposite individual statements.

Almost all organisations in the research sample professed a desire to link investment in learning to measurable changes in business performance. One manager in the survey encapsulated this by stating that what she was looking for were – *“Changes to the bottom line or changes to the culture that would connect to changes to the bottom line.”* However, the reality was that there was not a single instance where such linkages and measures were defined at programme commencement. One senior manager summed up the frustration felt by most when she confessed *“I have not seen much evidence of evaluating outcomes after the event”*. Mirroring the ASTD findings (Fig 2) all organisations in the sample collected Kirkpatrick Level 1 reaction data, approximately one third of the sample checked formally on knowledge transfer (Level 2) but only one organisation expressed any desire to reach out into the workplace after training to assess behavioural change (level 3). The programme designer commented thus: *“So right now we are trying to go through a Kirkpatrick level 3 approach and identify what are the skills applied and try to get anecdotal information about certain contracts that have been won where we think we could attribute any degree of the success to the training programme”*. Even in this case the desire only surfaced from the training community some nine months into the life of the programme.

And yet, despite this lack of hard evidence, in almost every case surveyed the programme was considered to be an unequivocal success and in some cases attempts were ongoing to replicate the success of the programmes in other parts of the business. How then do organisations actually satisfy themselves that their learning investments are producing the required value? The balance of evidence drawn from the interviews in the research sample appears to suggest that where some or all of the following conditions apply value is determined to have been created:

1. Techniques and skills from the learning programme are seen to be adopted in the workplace.

The signs to look for are people trying out new techniques or adapting their approach to problem solving. One receiving manager commented that the training appeared to have had the effect of *“bringing them all to a common standard in the language of analysis in terms of what are the processes, what are the rules, what are the specifications”*, and that as a result *“they now understand there is no ambiguity about what anybody means.”* It must be understood that proficiency builds over time and it is incumbent

Insert Fig 3 about here

upon line management to provide an environment where workers have the confidence to apply newly acquired skills in an operational environment. More advanced indicators are critical appraisal of new techniques and recommending changes to suit local conditions and culture, or working to adapt local processes to take advantage of new techniques. Perhaps the most powerful sign is when workers start to proactively advocate and disseminate best practice to their peers resulting in techniques being adopted beyond those who were part of the trained community.

2. People share knowledge and experience. The things to watch out for here are signs that people are becoming more connected. This is likely to start with people spontaneously sharing stories of success and failure and could build up to the formation of communities of practice. This is evidenced by comments from managers along the lines of *“We encourage them to keep track of their successes and share them and keep in touch. We have some real good stories of a million \$ here or there that show that we are making a difference”*. One

important side effect of this connectivity is that the organisation starts to gain a better understanding of where centres of tacit knowledge lie, in simple terms, who knows what. This in turn leads to connecting people together to better utilise corporate memory and experience. This improved connectivity was perceived to be a key side effect of many of the programmes as evidenced by comments such as observable increases in *“networking, partnering and collaboration”*. As collaboration grows and virtual teams start to develop it is common to see people building a willingness to accept collective responsibility for outcomes.

3. **People show signs of new ways of thinking and working.** Early signs to look for are a willingness to try new things, viewing and thinking about problems differently which in turn leads to using information differently and thinking about the results of their own actions. Typical of manager’s comments in the arena were observations such as *“Seeing ideas through to completion picking up all those great ideas that would otherwise be left by the wayside”*. As individuals gain confidence we might expect to see signs of being more prepared to taking decisions and to take personal responsibility for results. Decision making is becoming a critical business attribute as indicated by comments such as *“Decision making is also key; the velocity of decision-making has increased so we see decision-making skills as absolutely critical”*. At this stage you would expect to see people forming new relationships and developing a wider circle of influence all of which ultimately leads to less direct supervision and a more mentoring style of management. Evidence that these habits have become truly embedded may be taken from people starting to take a third person view, e.g. identifying with the customer (internal or external), as one manager opined *“Do they talk about the business challenges of customers”* and *“do they talk about customer service and the efficiencies of the way we have satisfied their requirements”*. Are they adopting a wider, longer term view and demanding that their colleagues act ethically and with integrity.
4. **The organisation and the employee adopt a symbiotic approach to personal development.** This is seen through processes built around the idea of linking learning and development initiatives to broader organisational goals through tangible links into the appraisal process and as an input to personal development plans. Recognition of the line managers’ crucial role in the adoption of new skills and practices. Various managers in the survey

commented upon the critical role of management support, typical amongst the comments were a desire to see initiatives driven; *“more effectively from a corporate level”* and for *“most senior management to show passion and belief in the concepts that underpin the training”* as this leads to *“line management below them may also see it as important and then things like this get followed through”*. Encouraging trainees to build action plans of how they intend to incorporate new techniques into their practice, one would expect to see them sharing their plans with line management and working together to create opportunities for personal growth. The creation of information sharing structures gives the line manager dynamic data on the progress of the training programme and help the manager to drive and gain acceptance of organisational change. Softer symbols are a commitment to developing future talent and a willingness to take account of individual as well as organisational needs.

5. **Learners enjoy their experience; they are enthused by it and recommend it to others.** The usual evidence for this is positive end of course reviews but this research has shown that senior managers place greater relevance upon secondary measures. Key amongst which are other senior managers and high levels speakers wishing and willing to commit time to the programme. Informal feedback and anecdotal evidence of value from the field come in the form of success stories and case studies. But without doubt the most positive sign is when other managers wish to be associated with the programme or to emulate it in their own areas of the business. One manager in particular told of an initiative that had initially received little management support but once successful senior management adopted it and there was rapid evidence of emulation in other departments, he was quoted as saying, *“now there is a testing competency manager and they have there own training in place”* and *“also the project management community have recently appointed a competency manager and they are looking at how they build competency going forward.”*

Finding a Purpose for Evaluation

Evaluation is the mechanism through which we acquire feedback about the effectiveness of organisational initiatives; its purpose is to inform management decision-making and facilitate action. Specifically in the context of training, we suggest, evaluation may be viewed as:

the process through which we assure that the learning and development initiatives help to produce the desired individual and collective changes in practice and that such changes are supportive of the business goals that gave rise to the initiative.

Organisations do not invest in training in order to keep the training department busy nor do they invest in evaluation in order to prove that the training department is doing a good job. However, in his latest book, Kirkpatrick lists this as the primary purpose of evaluation (Kirkpatrick, 1998). He lists secondary considerations as the decision whether to continue or discontinue training programmes and gaining information on how to improve future programmes. Whilst the final reason does point to organisational learning and hence the improved selection of training initiatives, the general tone points to what we consider to be the fundamental problem with the conduct of training evaluation as it is currently practised: it is designed by training professionals, for use by training professionals who subsequently process data which is almost exclusively circulated to yet more training professionals (Abernathy 1999; Islam, 2004). Indeed Abernathy quoting Bernthal goes so far as to question if the wide acceptance of Kirkpatrick may have “limited our

Insert Fig 4 about here

thinking regarding evaluation and possibly hindered our ability to conduct meaningful evaluations” (Abernathy, 1999). It seems logical that the only way to break this incestuous and ultimately debilitating cycle is to recognise that the only people in a position to judge the extent to which training has produced an impact on a business goal are those people who are charged with managing the business processes that gave rise to the goal. Therefore, the design of a training evaluation regime must precede the implementation of the training, it must include business managers from the outset and should be constructed to be operated by and inform those same managers.

Kirkpatrick is not an evaluation framework, it is a set of conditional propositions that relate the acquisition of skills and knowledge to the development of behaviour and subsequent performance (Phillips and Stone, 2002). It provides no guidance on how such causal linkages between behaviour and performance could be established. The assumption appears to be that evaluation can only be effectively

performed for that subset of tightly bounded situations such as systems or process training or specific health and safety programmes where error rates, rework or accident statistics are readily available. In all other cases we are valid in throwing our arms in the air and claiming sorry we would like to do this but it's just too difficult (Kirkpatrick, 1998; Abernathy, 1999; Phillips and Stone, 2002).

Towards a Holistic Model of Evaluation

The discussion above points to the need for an evaluation framework that covers the whole of the learning and development life cycle; one that ideally is linked to and cross-referenced with the traditional training development life cycle. This view is supported by practitioners who are charged with implementing evaluation in organizations (Brinkerhoff, 1998; Bushnell, 1998). Further, it should be business-focused and business driven, providing management guidance to the business and supporting decision-making (Kirkpatrick and L'Allier, 2002; Islam, 2004). It should also provide ongoing quality and operational feedback to allow the training initiative to be managed through its life cycle (Cross, 2004).

Based upon emerging best practice from the literature and from the opinions expressed in the research interviews it would appear that the best results of evaluation would be obtained when using a holistic life cycle such as the following five-stage evaluation model published by Sutton in Learning and Development, a journal read by key policy makers in corporate training (Sutton 2005):

1. initiation - determine decision-makers' information needs;
2. set programme goals – business outcomes and training outputs;
3. design and pilot the evaluation regime;
4. monitor and control the programme;
5. demonstrate and share information on accrued value.

Insert Fig 5 about here

A model such as this ensures that evaluation is thought about at the earliest possible stage of a learning and development initiative and that business managers are intimately involved in every aspect of the evaluation life cycle. The five stages

are elaborated upon in the following paragraphs and Figure 5 provides a useful summary for action.

The Initiation phase; determine decision-makers information needs.

Organisations engage in learning and development programmes for a variety of reasons and they may not have a discipline of articulating these clearly to the same level of rigour that would be expected from a technology project of similar budget. The vast majority of the programmes in the survey were initiated with one or more of the following aims in mind:

- bring about fundamental change – move people out of their comfort zones
- establish new ways of working
- bring about incremental performance improvement
- improve perceived poor service
- identify and grow essential skills within the business

Whilst trying to achieve these aims it was also deemed important to:

- link training to business strategy and reflect leadership priorities
- target specific competency areas
- maintain central direction and influence career development

Only by understanding the reason for the initiative can you work with managers to define the nature and frequency of information flows that are needed to steer the programme in its broadest sense. As Islam puts it we cannot continue to build evaluation regimes that “*virtually ignore the perspective of the entity that, in many cases, finances the training to begin with, the business stakeholder*” (Islam, 2004). Our aim then must be to construct evaluation criteria that illuminate rather than cloud management decision-making. Figure 6 - Shows how the 5 stage evaluation model inter-relates with the traditional training.

Insert Fig 6 about here

Set programme goals

Management are already interested in the programme so it should be relatively simple to establish why they consider it to be important. Get them to describe what they think success would look and feel like. Examine when it would be reasonable to expect to see the behaviours and practices emerging and what adjustments may be needed to the working environment (including processes and systems) in order to facilitate these changes. Then construct a small number of measures that clearly

indicate progress along each of the dimensions that represent the desired look and feel. Cross (2004) terms these performance agreements and exhorts us to explicitly state the what-ifs and maybes using assumptions that sponsors can buy into. Contrary to popular belief, most management decisions are based upon emotion and gut feel rather than any rational decision model. In a world where perception is everything don't be frightened of subjective measures. Self and peer evaluation can reveal a lot about people's attitude to work and the way they deploy skills and knowledge in solving day to day business problems. As Abernathy points out, 360 degree assessment is an excellent method to determine whether co-workers have experienced a difference in the performance of the training participant (Abernathy, 1999). If an assessment tool shows that people feel good about themselves and their colleagues and feel a collective responsibility you can be fairly sure that the business performance measures will mirror the positive trend. McLinden, quoted in Abernathy, points out that we need to "communicate results clearly to business people who are not necessarily interested in the fine points of statistics and research design" (Abernathy, 1999).

Design and pilot the evaluation regime.

When designing the evaluation regime think about it as a mechanism for collecting and widely disseminating information about the progress of the initiative so that all those involved can ensure that they contribute effectively and make

Insert Fig 7 about here

decisions that are good for the programme as a whole. This means working with management who commissioned the programme but it also means working closely with the line managers who will receive the trainees and whose task it is to embed new practice. The line manager is fundamental to creating and sustaining an environment that:

- provides appropriate opportunities
- redirects current tasks
- shares experience and delegates wisely
- tolerates mistakes
- designs new practice
- provides links to business direction and vision
- gives feedback on progress

In order to do this effectively the line manager needs feedback on progress along each of these dimensions and needs to understand where barriers to change exist – the evaluation regime should be the primary source of this in flight information.

Monitor and Control the Programme.

During this phase the emphasis should be upon the overall direction of the programme and the identification of early signs of progress towards the stated and agreed goals. This should be a mix of standard measures of business performance combined with a rich picture of changes in knowledge, behaviour and the working environment that collectively could lead to new levels of practice. Emphasis should be placed on the word 'practice' as this implies performance in the workplace - other practitioners refer to this as 'transfer', - the point being that the gaining of a degree of competence only matters if that competence translates to improved job performance (Garavaglia, 1998). Today's managers are seeking data that shows the business impact of learning and development both from a short term and a long term perspective (Phillips, Phillips, et al 2004). Such a balanced basket of measures (term coined by Kaplan and Norton in their attempt to broaden the organisational performance debate beyond just financial measures (Kaplan and Norton, 1992)) was absent from all of the cases in the research sample, indeed other than the routine collection of reaction data and end-of-course focus groups, none of the organisations sampled exhibited any planned post-course data gathering. Only one case sought to instigate this type of research in response to unsolicited success stories from the field. In a number of cases, changes in the behaviour, demeanour and practice of the trained personnel led managers and customers to remark upon the changes – such stories of success enhanced the reputation of the programmes and led to the initiation of copy cat programmes. Such stories should not be left to chance; the collection and sharing of such data should be an integral part of the evaluation regime.

Demonstrate and share information about accrued value.

This phase of the evaluation cycle has two purposes. First, it needs to identify and track any changes in key business metrics agreed in the goal-setting phase and also build upon the rich picture of change by adding further information about changing levels of practice. Second, it governs the communication and influencing strategy that is so important to building a wide-ranging appreciation of the benefits accrued from the programme. Indeed our aim should be to create an ongoing

dialogue and hence to shape impressions and decisions over the long run (Pulley, 1998). The research appears to show that when looking for changes in practice, there are key differentiators that recur regardless of the nature of the programme content; namely, one expects to see the community developing a common vocabulary and approach, consistent application and the wide adoption of standard templates and structures. Customers regularly comment upon professionalism and confidence of approach whilst practitioners cite a greater sense of self worth and value. It is important that the business and operational line managers are involved in the collection, analysis and dissemination of evaluation data and that it is structured in a manner that aids their decision making process.

Implications

It is, of course, dangerous to draw too much from one culture to another, but it is possible to see ways in which our review of current practice of ROI in the corporate world can illuminate ROI practice in formal education and training. First and not least, it should be recognised that the review shows how difficult it is to implement the much-respected Kirkpatrick model even within closed and integrated systems such as a single company. Except in the very smallest of companies, those who decide corporate policy and vote the money are normally not those who deliver the service. Those who deliver the service do not usually have responsibility for supervising the subsequent work of the beneficiaries. Those on the front line, the trainers, are left to evaluate their own work – albeit with some corporate monitoring. As our work shows, cross function planning and effort are necessary to enable companies to progress to Kirkpatrick's higher levels. If it is difficult in a single company where key functions are supposedly interrelated, how much more difficult is it in the public sector where key decisions and responsibilities are spread so widely, where governments vote the funds, college managements provide the service, and a wide range of disparate employers use the final product. And then there is the learner – the immediate beneficiary - who does not have the same contractual obligation as an employee to manifest longer-term benefits of the learning experience beyond satisfactory completion. Bilateral training schemes between colleges and local employers, deals between universities and research bodies, and externally funded development projects (e.g. tightly specified EU funded initiatives) are closer to the coherent single company model with clear boundaries, but they too are difficult to evaluate at Kirkpatrick's levels 3 and 4.

But the main lesson from the study - an understanding of how important it is to take a holistic view of the full process within which education and training functions, from initial conception of purpose and follow up of impact in terms of that purpose – is indeed relevant to the public sector. The Fryer Report in 1997 called for such an approach and eight years later the UK government's Secretary of State for Education and Skills committed the government – as primary investor - to working with providers and employers in reviewing their policy and the value of their investment in current education and training programmes. Sutton's five-stage model with its linked concentric circles (Figure 6), shows crucial stages in the evaluation cycle where decisions at the operational level – the inner circle - need to interrelate with the wider contextual and policy level, the outer circle. In a disjointed system, such as public sector education and training, priority needs to be given to building and nurturing these links to ensure openness at all stages, effective channels of communication between components, and shared reviews of overall effectiveness leading to subsequent better informed policy decisions. Such inter-dependence requires common language, values and concepts. And, of course, it all takes time, particularly for high-level personal skills and qualities, to manifest themselves.

There are many in the education service for whom the concept of business initiative as being the heart of the process – as in Sutton's five-stage model – is an anathema. But if funding (in this context, a softer word than investment) is to be provided, 'personal fulfilment', 'enculturation' or indeed any other traditional education purpose could be substituted for 'business initiative' and the model would still apply. Whatever the nature of the purpose of the initiative, we need to begin with open debate on what that outcome will look like. We need to go beyond separate emphases on what is measurable – such as costs, retention, completion, targets, qualifications of staff – and what is observable – such as learner reactions, teaching quality, benchmarks and quality of outcomes – towards an overall evaluation of the extent to which that purpose is being met and, more particularly, an assessment of how the purpose itself might be refined for the future and how the process of achieving that purpose could be more effective.

c5220 words plus abstract, 7 figures and references.

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Figure One

Fig 1: The Kirkpatrick Model of Training Evaluation
<p>Reaction – measures how those who participated in the programme reacted to it.</p> <p>Usually measured using end of course feedback (Happy Sheets), usually based upon a 5 or 7 point scale.</p>
<p>Learning – the extent to which participants change attitudes, improve knowledge and increase skill as a result of attending the programme.</p> <p>Usually measured using objective based test questions immediately after completion of the training.</p>
<p>Behaviour – the extent to which a change in behaviour has occurred because the participants attended the programme.</p> <p>Measured (assessed) in the workplace. Usually by self assessment or sometimes by 360 degree peer review. Assessment are subjective, difficulties arise in base-lining the pre-course behaviours.</p>
<p>Results – the final result that occurred because the participants attended the programme.</p> <p>This requires a view on the extent to which changes in key business metrics can be attributed to changes in individual behaviours.</p>

Figure Two

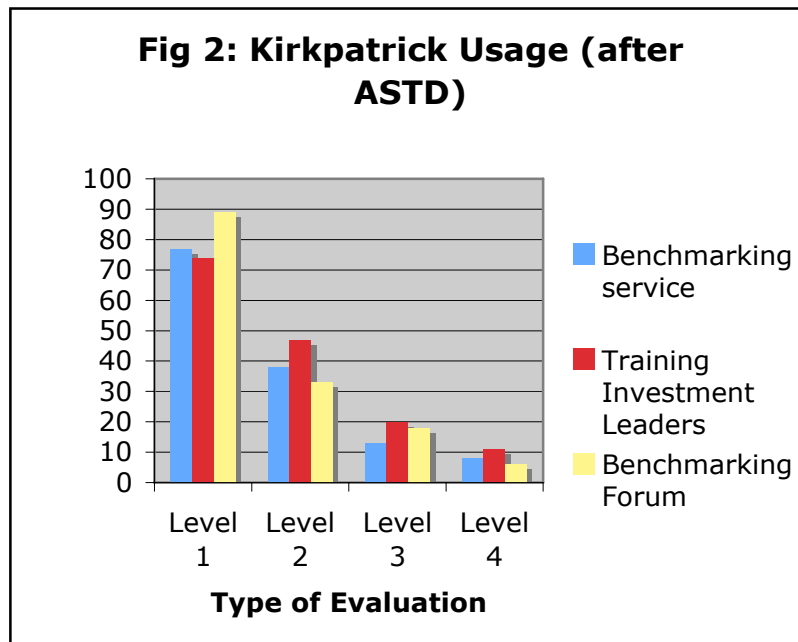


Figure Three

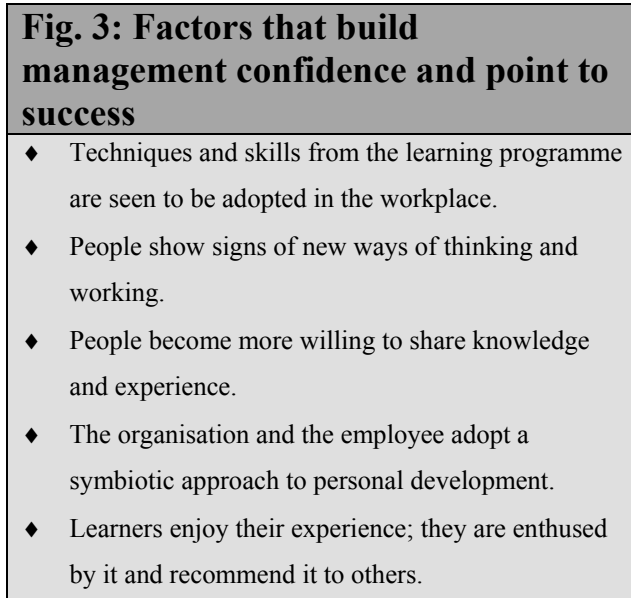


Figure Four

Fig. 4: Problems with Kirkpatrick

- ◆ It is an incomplete model in that it's first step can occur only after a training event has happened.
- ◆ It claims to be business focused but it is designed by trainers, for trainers and uses training language.
- ◆ It claims to be outcome oriented but concentrates almost exclusively upon process measures.

Figure Five: Sutton's Five-stage Evaluation Model

Instructional Systems Design Model (ISDM)	Evaluation Life Cycle	Focus for Evaluation
Needs Assessment	Initiation – Identify Information Needs	<ul style="list-style-type: none"> • What are we trying to do? • Is this linked to broader business strategy? If so how? • Who are the decision makers? • What information do they need and in what form? • What will they do with the information and when will they need it?
Design	Set programme goals	<ul style="list-style-type: none"> • What are the overall business goals related to this initiative? <ul style="list-style-type: none"> • Is it linked to fundamental organisational change? • Is it designed to roll-out best practice? • What does the desired end state look and feel like <ul style="list-style-type: none"> • How will you recognise you are there? • At what stage is it reasonable to expect to see the effects of the change? <ul style="list-style-type: none"> • Construct a time phased benefits realisation plan • What else would give the decision makers comfort that progress is being made?
Development	Design and pilot the Evaluation Regime	<ul style="list-style-type: none"> • What information do training managers need to manage the conduct of the training programme? • What information do business and line managers need to ensure that the goals of the programme are met? • What information do operational managers need about the impact of the working environment on the adoption of new practice? • How can we encourage action planning to drive new behaviours?
Implementation	Monitor and Control the Programme	<ul style="list-style-type: none"> • Look for changes in knowledge <ul style="list-style-type: none"> • Increased collaboration • Increased take up of accreditation's • Look for changes in behaviour <ul style="list-style-type: none"> • Collaboration and networking • Attitudinal changes • Broader perspective • Increased circle of influence • Look for changes in the environment <ul style="list-style-type: none"> • Line manager changing behaviour • Line manager removing barriers to change • Change reaching beyond target community
Post course evaluation	Demonstrate and share information on accrued value	<ul style="list-style-type: none"> • Look for changes in Practice <ul style="list-style-type: none"> • Sharing ideas and techniques • Common vocabulary and approach • Attempts to apply techniques • Sense of professionalism / value / self worth • Look for changes in traditional measures of business performance

- after Sutton, 2005

Figure Six: How Sutton's 5-stage evaluation inter-relates with the traditional training development cycle

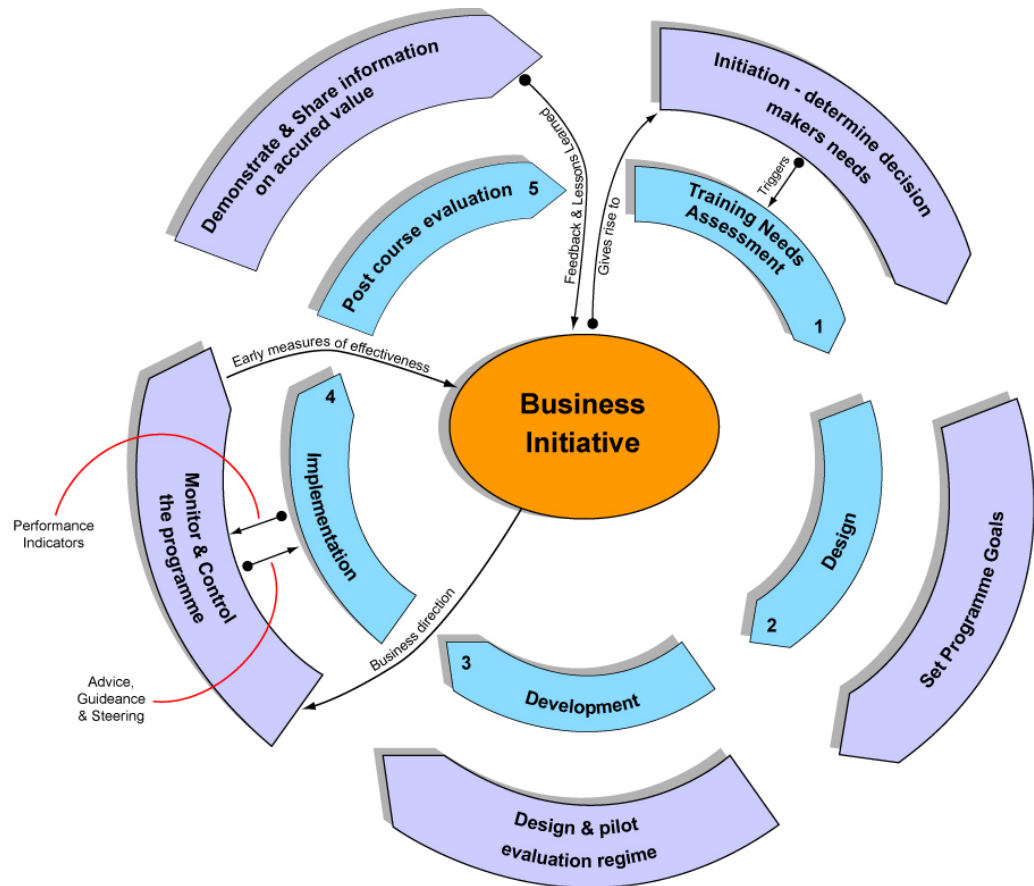
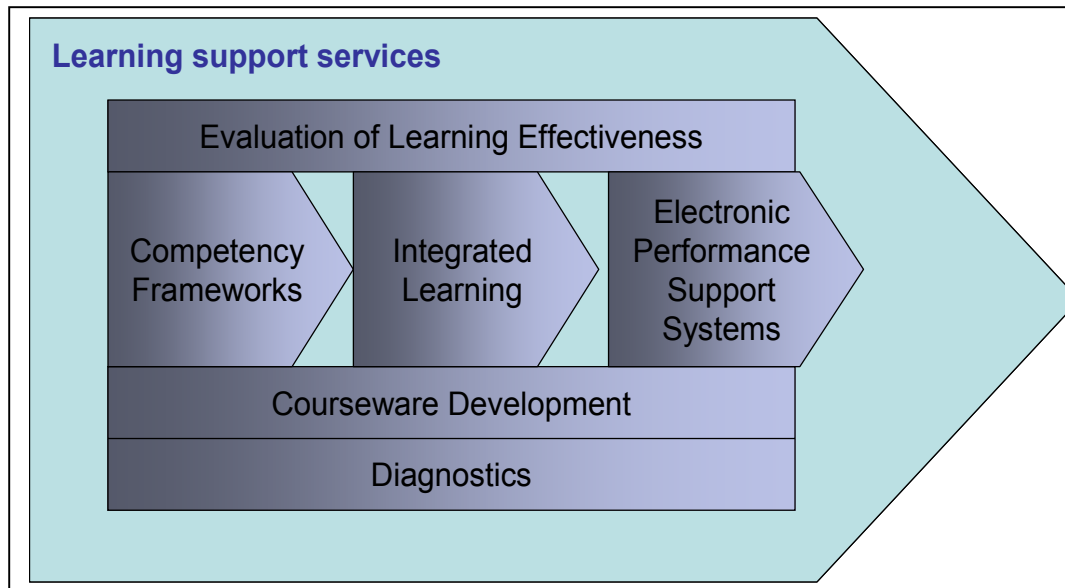


Figure Seven

Fig. 7: Summary of Key Points
<ul style="list-style-type: none">◆ The journey to demonstrate the value of learning starts before the learning itself◆ Concentrate on who needs the evaluation data and how they will use it rather than worry about how to collect it◆ Understand that it takes time to embed changed practice so aim for an evaluation regime that provides a rolling view of key metrics

Learning Development

Service Overview:



QA understands that organisations turn to their Learning and Development function to deliver fundamental organisational change. We have wide experience in designing learning strategies and deploying and managing the supporting infrastructure to drive performance from those strategies. The effectiveness of any organisational change is a function of the quality of problem diagnosis, the quality of solution design, the quality of implementation and the quality of commitment at QA we are equipped to support you on every step of the journey.

Business Challenges:

Many organisations have invested in generic libraries of e-Learning material but are experiencing difficulty in sufficiently high levels of utilisation to justify their investment, QA can specify and build bespoke learning pathways that blend face to face learning with a wide range of e-enabled resources in a manner that is stimulating and which will drive improved utilisation of key resources.

Organisations waste money and jeopardise performance because they don't accurately know what their people know, the result is the wrong people in the wrong place on important projects and programmes and dysfunctional teams. QA can deploy a wide range of diagnostic tools from organisation wide competency profiling based upon standard frameworks such as SFIA through to 360 degree behavioural assessments – the result, a clear picture

of the skills, knowledge and behaviours that drive performance and learning that is directed to the real need delivered at the time it can produce the greatest impact.

QA's Approach:

QA can deploy a wide range of diagnostic tools to assess organisational process maturity or to benchmark individual knowledge and skills. We build upon the understanding gained to design and deploy competency based personal development planning with self and peer assessment. QA can deploy leading edge systems to support competency management and learning pathways. We have an award winning approach to the design and development of integrated learning programmes and can reach out into the workplace through electronic performance support systems (EPSS) to support the informal learning that drives performance improvement. Finally, QA has developed an industry leading approach to evaluating the impact of learning initiatives and works with organisations to tailor simple but effective feedback mechanisms that can be used to steer important learning programmes.

QA Customers:

QA have delivered a leadership development programme to the Scottish Parliament and Scottish Executive. Typical comments are “.....”

High level audit of the learning and development strategy of BAE systems, the HR director was quoted as saying“.....”

QA developed and deployed a multi-national graduate development programme for a major financial institution concentrating upon business analysis and internal consulting skills. A typical delegate reaction was, “.....”

Related Publications:

By Brian Sutton, Director of Learning;

O Reason not the Need: Ten Tips for Training Needs Analysis, e-Learning Age, October 2004.

Demonstrating the Value of Learning Initiatives, Learning and Development, May 2005.



NEW PERSPECTIVES ON TRAINING EVALUATION

Do you want to be able to demonstrate the impact of your training and learning programmes?
Would you like to have dynamic information that tracks the progress of your training programmes and enables you to steer them more effectively?

Why should we evaluate training programmes?

Evaluation is the feedback mechanism that can provide the essential information to allow effective management of training programmes. Evaluation should be a learning mechanism that improves the targeting of training and should aid decision making during programmes. But all too often evaluation is an afterthought and is used as a means of justifying previous actions rather than guiding future decisions.

At QA we believe that evaluation should be a holistic five step process which can be targeted to achieve any of three purposes as follows:

- Evaluation as a means of **Checking** – is the training efficient and performing as expected?
- Evaluation as a means of **Steering** – is the training effective and can we make dynamic modifications to improve effectiveness?
- Evaluation as a means of **Challenging** – have we designed the most effective intervention, could we have produced the desired outcomes by some other means?

Who is interested in the results of evaluation?

Trainers need to understand the efficiency of their training offerings in terms of delivering the agreed knowledge and skills to the agreed community. To do this they must answer questions such as: Is the design appropriate? Are the materials of the right level and accessible to all? Are the formal parts of the programme delivered in the most effective manner? Could the programme be improved by adjusting the nature, approach or presentation of any of the materials? Operational managers, by contrast are interested in whether or not the learning experience complements the activity in the workplace, are there appropriate structures in place to support the learners and help them translate new knowledge and skills into improved practice.

How do we set about evaluation?

The three big questions that need to be addressed when planning an evaluation strategy are around:

- **Purpose** - what questions do we wish the evaluation to answer and who is best positioned to own the process?
- **Process** - what are the major steps in an evaluation model and how do they fit with the training design and development process?
- **Scorecard** - once a process has been established are there a consistent set of indicators that can be deployed to build management confidence that something worthwhile has accrued from the investment in training.



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The QA five-step life cycle model of evaluation

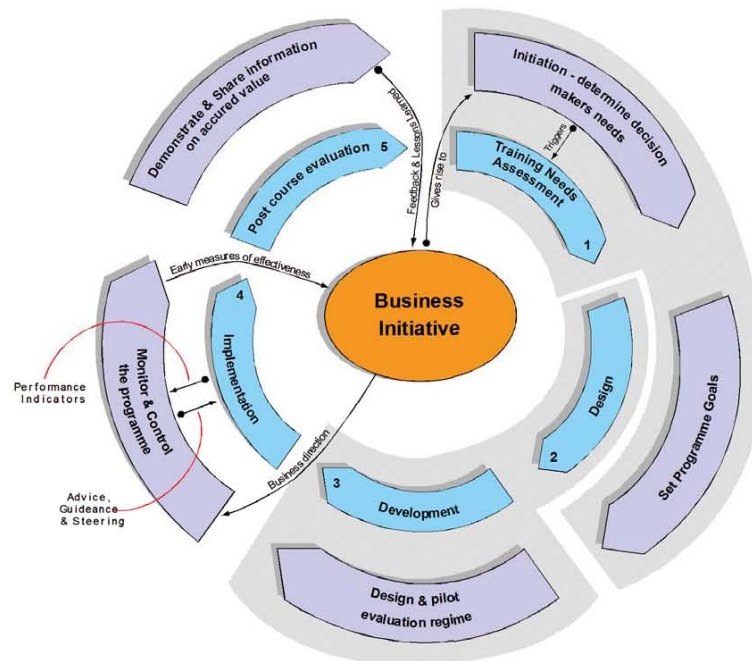
A Life Cycle Approach

The QA life cycle model satisfies the basic principles set out above in that it represents a more holistic view of the role of evaluation in checking, steering and challenging training programmes.

The steps in the life cycle are:

1. Initiation - determine decision-makers information needs
2. Set programme goals – business outcomes and training outputs
3. Design and pilot the evaluation regime
4. Monitor and control the programme
5. Demonstrate and share information on accrued value

The value of a model such as this is that it ensures that evaluation is thought about at the earliest possible stage of a learning and development initiative and that business managers are intimately involved in every aspect of the evaluation life cycle. It makes explicit the steering role of evaluation and promotes wide stakeholder involvement at every stage of the life cycle.



For further information visit www.qa.com, call Client Services on 0870 90 600 90 or email responsecentre@qa.com.

Mapping the QA evaluation life cycle against the instructional systems design model

Instructional Systems Design Model (ISDM)	Evaluation Life Cycle	Focus for Evaluation
Needs Assessment	Stage 1: Initiation Identify Information Needs	<ul style="list-style-type: none"> What are we trying to do? Is this linked to broader business strategy? If so how? Who are the decision makers? What information do they need and in what form? What will they do with the information and when will they need it?
	Stage 2: Set programme goals	<ul style="list-style-type: none"> What are the overall business goals related to this initiative? Is it linked to fundamental organisational change? Is it designed to roll-out best practice? What does the desired end state look and feel like How will you recognise you are there? At what stage is it reasonable to expect to see the effects of the change? Construct a time phased benefits realisation plan What else would give the decision makers comfort that progress is being made? Construct and agree a set of time phased key indicators on each of the dimensions of value
Design & Development	Stage 3: Design and pilot the Evaluation Regime	<ul style="list-style-type: none"> Benchmark all levels of current performance against the chosen indicators for each dimension of value Design the criteria for evaluating changes in knowledge. Construct data gathering mechanisms for the training community to assess reaction and learning and hence manage the conduct of the training programme. Plan and effect changes to any policies and procedures needed to bring about the working environment that will help operational managers to drive the adoption of new practice. Engage management in action planning to drive new behaviours on all dimensions of value. Test and validate the data gathering mechanisms to be used in the workplace. Pilot the reporting mechanisms.
Implementation	Stage 4: Monitor and Control the Programme	<ul style="list-style-type: none"> Evaluate and report upon reaction and learning for the benefit of the training community Deploy the scorecard and identify and report upon the agreed indicators against each 'dimension of value' Modify the locus of evidence from the workplace to the broader organisational environment as the evaluation stages progress. Report dynamically to permit steering of the programme
Post course evaluation	Stage 5: Demonstrate and share information on accrued value	<ul style="list-style-type: none"> Share evaluation data regularly and widely. Use the data to support and facilitate decision making. Show how the six dimensions of value have contributed to producing the desired Outcomes.

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NEW PERSPECTIVES ON TRAINING EVALUATION

The QA Balanced Scorecard for evaluation puts dynamic information in the hands of operational managers.

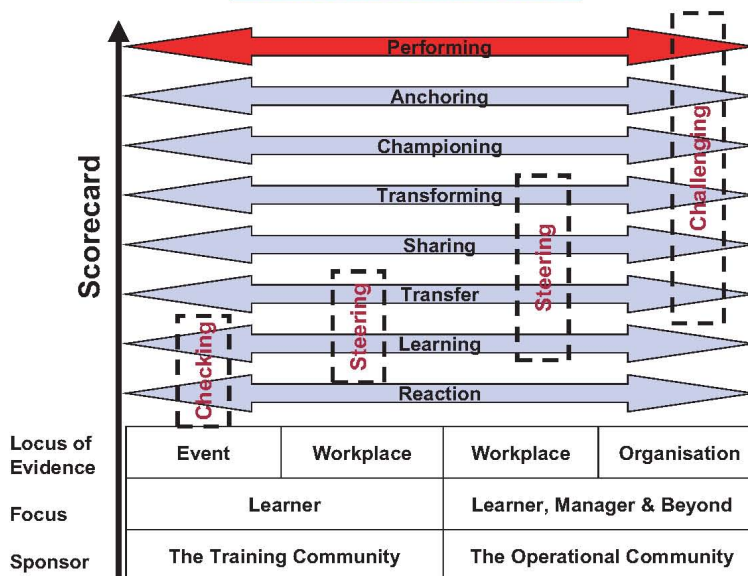
The Dimensions of Value

Training professionals have vast experience of tracking students' reaction to training and can also employ various testing mechanisms to assess learning. These mechanisms are ideal for estimating the efficiency of the training process but they do not prove that the training made a difference.

Any assessment of the effectiveness of training is best done in the workplace by providing operational managers with dynamic tracking information. To be truly effective, training must work in conjunction with other organisational initiatives to bring about changes in practice. QA have identified six dimensions of value that are prerequisites of improved performance in any training programme, these are;

1. Transfer – attempts to try out new knowledge and skills in the workplace
2. Sharing – obvious signs of knowledge and skills migrating through the organisation
3. Transforming - applying new skills and knowledge to do things fundamentally differently
4. Championing - signs that show that people wish to be associated with success
5. Anchoring - signs that new processes have become part of the culture
6. Performing - traditional levels of business performance

The QA Scorecard for Evaluation



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8.13 Appendix M – QA evaluation model – marketing data sheet – short format



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Purpose

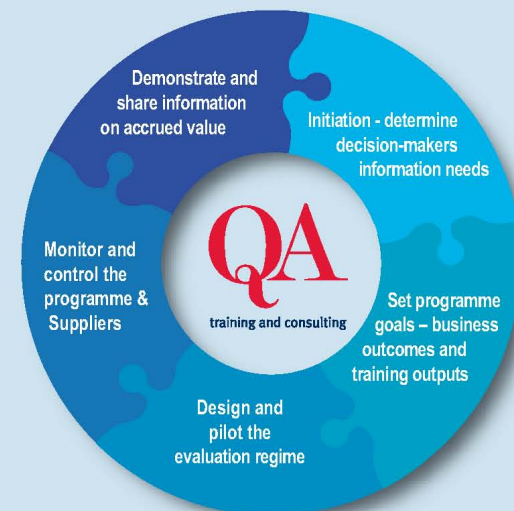
Evaluation is the feedback mechanism that can provide the essential information to allow effective management of training programmes. Evaluation should be a learning mechanism that improves the targeting of training and should aid decision making during programmes. But all too often evaluation is an afterthought and is used as a means of justifying previous actions rather than guiding future decisions.

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Process

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The QA five-step life cycle model of evaluation

Scorecard

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4. Championing - signs that show that people wish to be associated with success
5. Anchoring - signs that new processes have become part of the culture
6. Performing - traditional levels of business performance

Principles that guide the QA approach to evaluation:

- Training and Learning initiatives should be aligned to identified performance issues. Current performance should be benchmarked and new goals set.
- Evaluation criteria should be defined at the earliest stage of programme design.
- Evaluation should be managed by the people who have the responsibility of delivering the performance.
- Evaluation criteria should include a mix of hard and soft measures that together provide as complete a 'feel' as possible of the desired performance state and business outcomes.
- Measurement of progress against the evaluation criteria must take place in the workplace.
- The results of evaluation should be used to both steer programmes and challenge understanding of the drivers of performance.
- The results of the evaluation process should be shared widely.
- The effectiveness of the evaluation process should itself be subject to evaluation, this may be part of the 'challenging' role.

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